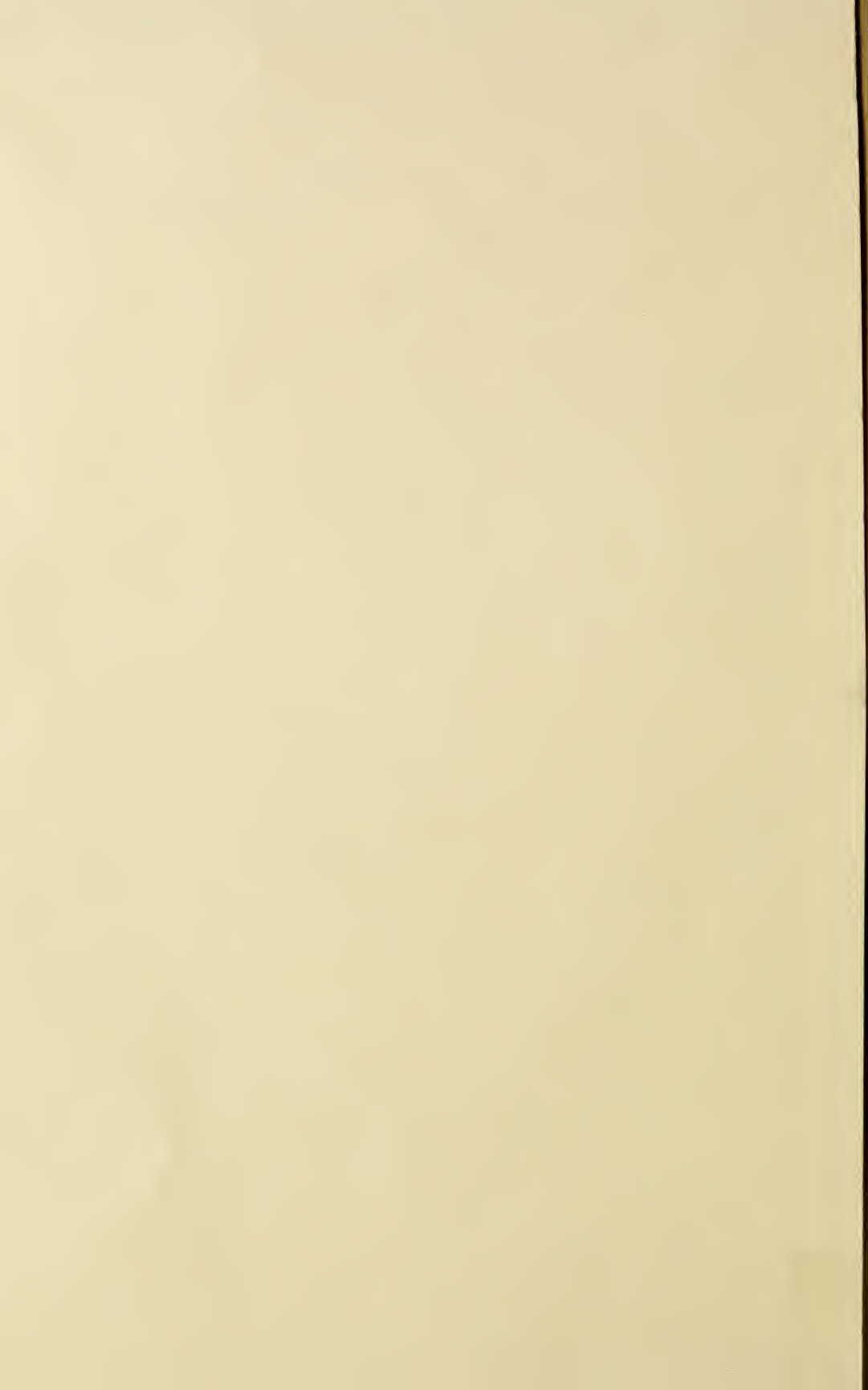


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THE  
MARYLAND FARMER  
—DEVOTED TO—

**Agriculture, Horticulture, Live Stock and Rural Economy.**

The oldest agricultural Journal in Maryland and for ten years the only one.

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TO PROSPECTIVE EMIGRANTS.

Every spring there is an influx of emigrants into the Western States and Territories. If some truths had been told these people, many of them would never have left their home. As it is, many retrace their steps in two or three years, wiser and yet poorer; while some become so poor that they cannot return, and being compelled to stay, finally may become successful.

Our people should at once understand that the States and Territories which are courting immigration, notably Kansas, Nebraska, Colorado, Dakota and Montana, are written up for the press in such a way that many readers overrate their advantages while at the same time remaining ignorant of their drawbacks. Western people, whose possessions would be greatly appreciated in value by more neighbors, may not be blamed for painting the beauties of their sections in colors a little brighter than would seem to justify, while every unpleasant feature is left out of the picture. Our people should remember that no locality is free from drawbacks, and while some are better than others, none is perfect. It is true that accounts of Dakota and Kansas blizzards are to be found in Eastern papers;

but how rarely are they told of compared with the accounts of the cheap lands, fertile soils, etc., of those Western regions! The truth of the matter is that there is just as poor land in Kansas as in Maryland; and this is true of the other States and Territories. In all the wind blows hard almost half of the year and proves to be a great nuisance. Timber is very scarce—almost altogether lacking. And often water can not be found short of one hundred feet of the surface. On account of the lack of forest and surface water, distance from bodies of water, and the character of the soil, the climate presents unusual extremes of heat and cold.

One thing which our people should understand better than they do, is that ready money can be made more easily in the East than in the new States or Territories. It is true that in the West much larger crops can be produced than in the East. But those crops must be sold at prices so low that a man will not realize so much for his year's work, in dollars and cents, as he could earn in the East; and everything he must buy—groceries, dry goods, boots and shoes, farm implements, etc.,—is higher. Men grow rich in the West, not because of the money they dig out of the soil, but by reason of the advance in the price of their

land. If the settler makes a good selection in some new locality, his land will increase in value four-fold in from five to ten years. It is by getting land as fast as possible and holding it while it increases in value, that men make money "out West." And the West offers this further advantage—that you can get a farm without paying a dollar in money for it. Your residing upon it for five years makes it your own, and all the time it will be growing more valuable. But remember that during this time you can lay up but little cash.

One thing more: Do not go West until you have enough money to buy all the supplies you will need for at least one year in your new home. While Western hospitality may be justly praised, it does not extend to feeding for a year all who may go. Your neighbors are poor, struggling to get along, and can ill afford to keep you. They can know nothing of your character, hence you will find it very hard to get credit. Many go to the West reaching their new homes almost penniless, and such must suffer privation until they can produce a crop.

To close these reflections how natural it is that we should advise the people of Maryland to remain in our State, where they have all the advantages of moral and intellectual influences, which are beyond their reach in these western lands. Life is too short for the farmer already surrounded by the happy homes of a happy people, with the bare prospect of improving himself pecuniarily, to break up all the ties of his home, and accept the privations, toils, and sacrifices not only for himself but for his best beloved ones; to speak nothing of the risks of health which always accompany a removal to the far West.

These considerations should also be taken into account even by emigrants who arrive in this country on their way to the West. Could they realize how many comforts they can have in Maryland, and how cheaply lands can be purchased here, we

believe very many would elect to make their homes among a people who will not only bid them welcome to their midst; but who have already provided for them schools, churches, and social blessings such as they will not find for many years in the West.

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#### MANAGEMENT OF ANIMAL MANURES.

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The proper management of animal manures does not appear to be well understood. The majority of farmers wait until about planting time in spring, before they haul and spread their cattle-pen and stable manure. Then they hasten to plow them in, fearing, as they say, that the ammonia will be dissipated, and the quality of the manure injured by delay. At the same time, perhaps, the same manure has been lying in bulk at the stable doors or in the stock pens all winter, subject to rain washing, evaporation, and dissipation. It is hard to understand how a few hours' or days' delay between plowing and spreading in spring, can be more harmful than the latter process of lying all winter exposed to the weather. This is one of the ways of the old regime farmers that no fellow can give a valid reason for. The winter exposure is wasteful of manure, and the spring application often harmful to the crop, and so both are wrong.

Unless the spring and early summer season is attended by frequent and copious rains, there is danger that animal manures, and especially stable manure applied then will "burn" the crop. If the season should be dry, this liability is greatly increased, when fresh and unseasoned animal manure is applied to the soil in spring. It is too heating in its nature, and does not have time to weather. True, manure that is exposed out of doors in winter is not so apt to burn as that preserved under shelter, but it will do so to some extent, if the early summer is dry. The proper way to man-



age all such manure, is to apply it to the land broadcast during the winter. February should not pass before all of it is spread on the land intended for cultivation. It thus has time to weather. It gets washed into and incorporated with the soil before the latter is ploughed, and so does not burn, no matter how dry the season. Haul out and spread manure now.

### OUR FOREIGN LETTER.

PARIS, JAN., 23.

The success of stacking green fodder, that is, open air ensilage, is progressing. M. Viter, between the 7th and 12th of October last, stacked in his court yard, after-maths of luzern, sainfoin, and meadow grass, the produce of seven acres; he weighted the mass down with one, to one and a half tons of flags, per square yard. He commenced on 3d of December last feeding sheep and cows with the stuff; they eat it with the same avidity as a mixture of mangolds and chaffed straw. The ensilage weighs 17 cwts. per cubic yard. The preserve will tide him over to the end of February, by giving one feed to the cows, and the same, every second day, to the sheep.

There is a growing tendency to give horses old rather than new hay. The former is believed to effect the skin and irritate the digestive tubes. Too much fresh hay certainly produces indigestion, and in the country, hay almost exclusively forms the rations of the horse.

The total production of beet sugar this year in France, is 260,000, to 275,000 tons; in Germany, over 825,000, and in Austria, 340,000 to 345,000 tons, the latter is a serious falling off.

The valley of Montmorency, close to Paris, exports to England 100 tons of pears annually at the price of 13 to 16 fr. per cwt.; they are packed in chaff, in baskets of one hundred weight. In Belgium, the "koolstock" (kail runt) from the small town of Looz, in Limbourg, fetches sales of 100,000 fr. of pears yearly, for the London market. Purchases are effected in the month of May, when the trees are in flower; the half of the stipulated price being paid in advance. The mean price is

15 fr. per cwt. A single pear tree pays the whole rent of a garden. The pears from Flemish Touraine, are so reputed, that they readily sell in Russia for 5 frs. each. There is a cooking pear called *Curi*, good for table and cooking, which at the rate of 50 trees, scattered over an acre, produces 1,200 fr. and this is not taking into account the forage reaped, or the vegetables raised as well. Pear tree planting on public road sides, so general in Saxony, is now making way in France. It is the hard cooking, and perry-making variety, which is preferred. The branches of the tree grow upwards, no small advantage for such purposes.

Swift says in his "Gullivers Travels," that "whoever could make two ears of corn, or two blades of grass, to grow on a spot of ground where only one grew before, would deserve better of mankind and do more essential service to his country, than the whole race of politicians put together." So thinks the French Government, in its remedy for the present trying condition of agriculture—to increase the yield of products and augment their industrial applications.

It is in this end that the Government has organized fields for the testing of experiments, not alone within the sphere of science, but what is perhaps a little too much overlooked, of practical novelties also. The developing of a spirit of enterprise and the perfecting of processes of production, are now more than ever necessary, in presence of cosmopolitan competition and facilities for cheap transport of food supplies. French, as well as other farmers, are rather coy respecting theories, and prefer leaving to others the care, and above all the expense of applying them.

But the case is different, when the authorities undertake to exhibit the working of a new implement or machine; to introduce a new mode of culture; to try a better variety of plants, or experiment with various fertilizers. In this case eyes can judge; and if confidence be gained, adoption will not be far from following. Fields of demonstration, selected in the most central situations will be acquired by the State; farmers themselves will be invited to aid the good work, and it is to be hoped finishing by becoming adepts or imitators.

One of the most invaluable servants on a farm is the sheep dog. It is the type

most removed from the original dog, which is the same as saying, it is endowed with high intelligence. Buffon lays down, the sheep dog is the nearest approach to the wolf dog. Dogs are found on every part of the globe, either in a wild or domesticated state; indeed more ordinarily in both. They group around the most northern latitudes; but the most numerous races, are to be found in the temperate zone, whose milder climate, united to antique subjection, have developed a thousand varieties—physical, differing alike, in conformation as in intelligence.

In the domestic state all dogs bark; in the wild, they only howl. Even in its savage condition, the dog does not lose its instinct to live with man, for, if taken in a trap, a few days suffice to tame him to associate. The shepherd's dog especially, has only one thought, one want, one passion—affection. It is capable of the most heroic devotion, dangers, fatigue, hunger, exposure and privations of every kind. And for all payment—a caress! It is said, the sheep dog when transported to a warm climate, suffers in point of intelligence. This must be an error, as the sheep dog in South America, displays marked intelligence. According to Darwin, whole flocks of sheep are left to its care; thus acting the part of a shepherd, not as in the East, where the shepherd is everything, and is followed by the sheep. Further the dog comes home for its food, and then returns to its duty; it has been even trained to drive the flock to the night-pen, at a fixed hour. If a stranger approach the sheep, the dog will advance, barking furiously, while the sheep will fall in behind him, as if he were a ram. This high development is due to the dog being reared as a puppy, away from its fellows, left isolated with a ewe which it suckles. Also, the dog is castrated.

The sheep dog has the ears, short and straight; the tail, horizontal or drooping, and bushy; the hair is long, shaggy, black, or dark grayish. The breed is numerous and exists all over the world, but its distinctive traits remain unchanged, and this is due, chiefly, to not crossing with any dogs, save those of its own species. The Scotch Collie is small—14 inches high, and is perhaps the most perfect type of shepherd dog. In France, there are two very distinct varieties; the *deBrie*, and *deMonta-*

*gue*. The first, is most esteemed, and for low-land work; the second, approaching more to the English cur dog, is larger, less intelligent, and generally preferred for forest and mountain regions, where it can, from its greater size and strength, grapple with wolves. It is also preferred when driving sheep to market, but it must not be confounded with the drover's dog, which is born without a tail, like manx cats.

This "scant" appendix, is accounted for thus; in early times, when the shepherd's dog had more frequent combats with wolves and bears than now, their owners had the habit to dock their tails and clip their ears, so that their foes might have less grip on them. Strip them like cocks for fighting, or prize boxers. This mutilation or deformity, by heredity became a special trait, for nature always stops at the necessary limits, and confers on each animal, those gifts or qualities, that can be usefully employed.

The sheep dog is the most precious of farm servants, and demands no wages. It makes the sheep, on receiving an order to march, as a colonel handles his regiment. Often the dog will remain the whole night, to guard a ewe which has been overtaken by a premature lambing, while returning to the fold, and in the morning, when the flock sets out, it will bark to attract the shepherd. The sheep dog ought to be alert, docile, naturally mild, vigorous and well built. To comprehend orders rapidly, and execute them without violence, so as not to frighten the flock, or produce, by running them rough and closely together, abortion in ewes.

The chief draw back with the sheep dog is, its great desire when young, to play with the sheep. Its attachment to its master is measured, in the sense, that it never allows demonstration of affection to interfere with business or duty.

In some regions, two species of sheep dog are kept; one, to look after the wolves and bears, and the other, to conduct the flock. It is said the female is better than the male sheep dog, for dealing with the wolves. Both are usually provided with a strong leather collar having iron spikes, so that in case of an attack, the wolf, which ever seizes its prey by the neck, will encounter a disagreeable tit bit.

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Ask your friends to subscribe to the FARMER.



## DEER CREEK FARMERS' CLUB.

## WHAT CAN FARMERS DO TO INCREASE THEIR PROFITS.

The January meeting of the Deer Creek Farmers' Club was held on Saturday, Jan. 30th, at the residence of Messrs. S. B. and Geo. E. Silver, near Priestford Bridge.

Mr. Benj. Silver, Jr., President, was in the chair, and H. Spalding Secretary. The question discussed was as follows:

"What other crops can we raise, or what other methods can we adopt with our present crops, to make our business more profitable?"

Geo. E. Silver said that the depressed condition of farming interests makes this an opportune time to consider the subject.

If we can succeed better with new crops or new methods we ought to find out what they are.

He had gotten some figures from the farmers' clubs of Montgomery county. There are three clubs in that county, and a farmers' convention is held yearly, at which reports from the various clubs are read. In that county a great many cows are kept, and butter and cream are sold. Five gallons of milk will make 1 gallon of cream and  $1\frac{3}{4}$  lbs. of butter. The milk is worth from 8 to 12 cts. per gallon. A member of the Montgomery club has one cow which averaged 685 gallons of milk, from which he obtained 137 gallons of cream and 240 lbs. of butter. The milk was worth say \$54.80. A member of the Enterprise Club had realized from one cow, 360 gallons of milk worth \$28.80. Besides the calf would be of some value. Mr. Silver thought a creamery, making from 700 to 800 lbs. of butter a day, would cost about \$800, besides the buildings, and would furnish a ready market for the milk from a large neighborhood. With the showing given it would pay better to sell milk than to graze cattle or even cut hay.

The potato crop, also, might pay. The average yield reported by the three clubs in Montgomery county was 126 bushels to the acre. At 50 cents a bushel the amount realized would be \$63 per acre. A few acres, at least, might be grown. Our only chance of success is in diversified crops.

We might keep good strong mares and raise colts and mules. Young Percheron horses 3 years old readily sell at from \$125

to \$150. The cost of raising a colt need not be more than \$20 a year.

Sheep also, are more profitable than cattle, if handled properly. One hundred sheep would cost, at \$3 each, \$300. They would produce 100 lambs, worth \$3.25 each, or \$325, and 450 lbs. of wool at 20 cts. a pound, worth \$90. The total sales would realize \$415, with the original 100 ewes still on hand and worth in the fall \$400. In all \$815. Deducting the first cost of the sheep, we would have a profit of \$515.

Seventeen head of cattle would cost to keep about the same as 100 sheep. At \$35 each the outlay would be \$595. At \$20 per head advance, we would realize \$340, against \$515 from the sheep.

The only way we can compete with the West is by raising more from our ground, than we do. Silos and ensilage will enable us to accomplish this. A silo 10 feet wide, 10 feet high and ten feet long will hold 45 tons of green food. The green fodder from 3 acres cut about one half inch long, will fill this pit. The expense of making it is moderate and the cost of filling it but little more than the cost of cutting up, curing and housing the fodder the usual way. Stock relish ensilage, and much more stock may be kept with it than without it. The corn for ensilage is planted thicker than usual, and the yield is from 15 to 20 tons per acre. Corn cobs and husks from canning houses would no doubt keep well in silos.

While thinking of new industries it is well to encourage those we already have. Canning has been of advantage to the county. Because some have not managed properly is no reason why it should be condemned. If the farmers would unite with the packers in sustaining it, the business can be made profitable. There should be a few large canneries in the county and the farmers around should raise crops for them.

A few years ago tobacco was the new enterprise, but now many farmers are against it. In Pennsylvania it is still raised and it might be grown here with profit. Every new enterprise that springs up should be encouraged.

R. Harris Archer suggested that the poultry business might be profitable. A dozen eggs are worth 24 cents and will buy more at the store now than ever before. For instance they will buy 3 lbs. of sugar,

2 or 3 lbs. of coffee, or 5 yards of calico. Even at 12 cents a dozen on a small farm they would pay as well as anything else. Mr. Archer thought the present depression in farming would not continue. One cause why the tobacco enterprise failed was that the crop did not have proper attention. It will pay when more people are interested in it.

Wm. Munnikhuysen would not suggest radical or sudden changes. He had found that a small patch of potatoes paid last year. Nothing pays better than chickens. Sheep are profitable. No doubt it would pay to keep two or three good mares and raise Percheron colts. At 5 years of age, if well matched, they will bring \$400 or \$500 a pair. Calves can be easily raised and are profitable. In fact there are many little things which all farmers can do to increase their profits.

S. B. Silver contrasted the profit of growing 37 acres of sugar corn with an equal area in field corn. The sugar corn paid \$1,200. In field corn the yield would not have been over 12 barrels per acre, making 444 barrels, worth this year, \$888. Sugar corn works well in rotation with other crops, as it is pulled when there is but little else to do. Raising colts is profitable. The sheep industry is nearly dead, because there are not enough sheep here to bring buyers of lambs and wool. There is no section of country more advantageously situated for raising sheep. Stock sheep can be bought low and we can find a good market in Philadelphia. The climate seems to suit them and we have natural green grass pastures which sheep do not injure. Lambs may be bought in the spring at 4 to 5 cents a pound, weighing 50 lbs., and kept until November, when they will weigh 100 lbs. Tobacco with skillful attention, will pay \$100 an acre. The dairy business is booming in Harford, particularly in the upper part of the county. Mr. V. G. Stubs, in Delta, has a machine which separates the cream from the milk, when fresh. He feeds the skim milk to hogs and makes butter of the cream. There is also money in hogs, but not much in poultry.

W. D. Lee thought that as this is a grazing section it would pay to raise improved stock. There is money in poultry but we don't pay enough attention to it. It would pay to get evaporators and work

up apples, of which great quantities go to waste every year for want of a market for them.

Wm. B. Hopkins thought as much money can be made by the old system of farming, except in growing wheat, as in anything else. Farmers ought to raise all their own horses and calves. He had found butter making profitable. Farmers ought to try a little of everything. Potatoes pays at 50 cents a bushel and sugar corn pays a little better than field corn. It will also pay to raise a few hogs every year. A few chickens will pay for eggs but for nothing else.

Wm. H. Bayless knew of two young men who went West five years ago, with a capital of \$2,000, and engaged in the poultry business. This year they came on to New York and contracted with one firm to send them 60,000 chickens. They now have \$20,000 between them.

S. Martin Bayless said that all know there is not much profit in farming. He had begun to raise colts, which he thought to be more profitable than cattle.

Edward H. Hall thought that farmers generally do not pay sufficient attention to the little things such as raising colts, calves and poultry and making butter. The best stock to raise is half Percheron. The colts will sell readily at good prices. The mare can be worked nearly all the time. He also believed ensilage would pay, and the reason why it has not been more generally adopted is because people don't understand it. Mangel wurtzel beets pay well. There is money in marketing of all kinds—eggs, butter, oats, meal and small stock. Asparagus is a profitable crop. There is no money in milk at 13 or 14 cts. a gallon.

Johns H. Janney thought farmers lose thousands of dollars every year by not selling small things, and they cannot be sold because they are not near a railroad. He thought that hop vines would grow along the creek bottoms, and hops are generally a paying crop. He advocated silos and ensilage. The system, he said, is no longer an experiment. He was satisfied that one acre of sugar corn fodder is equal in value to one acre of field corn fodder. Cattle wintered on it come out better than when wintered on field corn fodder. Poultry might be profitable if properly attended to.



H. Spalding had raised colts and calves with profit. Good chickens pay very well. He has Plymouth Rocks, for which he gets \$8 to \$10 a dozen. His butter brings 40 cents a pound in fall and winter and 30 cents in summer.

Geo. H. Gorrell regarded sugar corn as one of the best crops raised. He had raised over 100 bundles per acre last year. He is raising two colts and the cost is not as much as for fattening two steers. Eggs are always saleable and profitable. There is a small but certain profit and no outlay in little things and farmers should look out for them.

Thomas Lochary would rather try to improve on the crops now raised and the stock fed than try anything new. He did not think much of dairy farming.

John Moores said he did not think farming so much depressed as is generally thought. There is still a good living in it but expenses must be kept down. When we can raise 20 or 30 bushels of wheat to the acre and get from \$12 to \$15 a ton for hay we can do well. Many small things, such as sheep, poultry and hogs, are worthy of attention and work in with other business. He was in favor of raising colts but believed mules a curse to the country. Every year thousands of dollars are sent out of the country to buy mules, when every farmer should raise his own horses. The country is flooded with old, broken down mules and good brood mares are scarce. There is money in hogs, but he would not advise any one to lay out much capital in them, on account of hog cholera. There ought to be some law to compel people to keep their infected hogs at home and when one dies to bury it.

Rev. C. D. Wilson said he had been interested in the very intelligent and thorough discussion of the question. He was sure the preachers would be willing to have a boom strike the agriculturists of the country and he hoped they would find something to make them all very rich. He suggested that perhaps fruit might be found profitable.

Benj. Silver, Jr., the President, said that the greatest question to solve at present is how to dispose of our surplus grain. If we could get that started there would be a general revival of business. Times of depression are periodical and the depression is not confined to the farming interest alone. We

should try to get along as well as possible and when the tide comes to ride as high on it as we can. Some branches of industry are already starting. Another cause of depression in farming is the multiplication of labor-saving machines, which enable farmers to accomplish so much more and throw many men out of employment. He would not advise too great changes, simply because of the depression. Let us keep at the business we understand, and if judicious and economical a man at the end of his life will have laid up a competence. It would not do for all to raise hogs, or chickens, or eggs. These are not staples and overproduction would be easy.

Geo. E. Silver suggested that the farmers' clubs of the county unite once a year and have a general meeting, together with other farmers; read reports from the clubs; discuss questions, or have addresses from agricultural speakers. Even in legislation farmers say they are oppressed, but it is because they do not assert their rights. If we came together we would find out what our people want and demand and get our rights.

Mr. Edward H. Hall was elected an honorary member.

ED] Every farmer in the State should read the above discussion and experience of the Deer Creek Farmers Club. There is more real information to be gained from it than from all the resolutions offered in a 200 delegate convention.

Farmers adopt the Monthly Meetings as we suggested in our February Number and you will never regret it.

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#### SOUTH CAROLINA FARMERS.

There has been a steady and satisfactory growth in the amount and value of the agricultural productions of the State in the last nine years, as the following comparison shows:

In 1877 the area in cultivation in the principal crops was 2,383,780 acres, and the value of the productions was \$28,186,080. In 1885 the area was 3,707,532 acres, and the value of the productions was \$41,031,195, an increase during the period mentioned of \$12,845,115, notwithstanding the decrease in the price of these products.

## WILNA FARMERS CLUB.

## A DAIRY FARM — UNDERDRAINING.

The Wilna Farmers' Club met on Wednesday of last week at the residence of Mr. Edward P. Hollingsworth. The members were all present but one. The committee of inspection reported "the land in a good state of cultivation, fences in fair condition, stock looking well, with ample feed on hand to carry them through the winter."

Mr. Hollingsworth has in his stalls fifteen head of milch cows in fine condition. He sends cream to Baltimore during the summer months, and makes butter the balance of the year. He says the butter business is not as profitable as it once was, on account of the market being flooded with spurious articles which in appearance closely resemble the genuine, but are in reality, the product of the hog and not the cow.

A member suggested that the Vermont law would be a good one for Maryland, that is to let the yellow color be the dairyman's protection, and compel the manufacturers of all imitation articles to color theirs pink, green or some other color.

A fine lot of ewes, (22 head,) some of them with lambs by their sides, and all in splendid condition, were much admired by members of the club.—They were purchased last August from Messrs. Whiteford & Hammond, and proved to be a remarkably thrifty bunch of sheep. They have been fed principally on "rag weeds," which they seem to prefer to hay or fodder.

The question selected for discussion at this meeting was "underdraining." It was opened by Mr. Amos B. Hollingsworth, who had done considerable underdraining with very happy results. He had used stone, but was under the impression that drain tile would be better. If you use stone it is necessary to take pains in placing them, allowing a space at least six inches square for the water, and give it plenty of fall.

Mr. Geo. W. McComas said he was now engaged in underdraining, but found it difficult to procure suitable stone. The value of the drain depends entirely on the manner of putting it in. It was necessary to break all joints on the sides and top with small flat stone, to prevent the soil from getting through and choking the

drain.—Great care should be used in placing the stone, as a single defect would render the whole drain worthless. Had used chestnut rails in a number of cases and found them to give good satisfaction when the fall is sufficient.

Nathaniel Hollingsworth had done some draining with good effect. He mentioned a piece of land that he had recently drained that this year yielded a good crop of timothy, which previous to draining had been of no value. He made the drains from 2½ to 3 feet deep and used stones.

R. T. Browne was a strong advocate of underdraining and spoke from experience, having done a considerable amount of it some years since.—He mentioned a field on his farm, familiar to all the members of the club, which was once comparatively valueless but had been reclaimed by draining, and was now one of the most productive fields on his farm.

Thomas Hollingsworth, reported favorable results from what he had done and believed in underdraining. Thought it necessary to find the source of trouble; that done the rest was easy.—He used chestnut rails and knew of instances where they had been down 25 years and were still doing good service.

Wm. Hoskins could say but little from actual experience; had done some little underdraining; used stone and dug the drain 3 feet deep. He thought it paid well.

Many of the members had had no experience in underdraining but were convinced from observation of its value. Some had neglected it on account of not having suitable stone for the purpose, and the expense and great loss by breakage in bringing drain tile from a distance. A number suggested that this difficulty might be overcome by manufacturing the tile in the vicinity, as there is an abundance of suitable clay for the purpose, and thought there would be no difficulty in finding a market for the goods.

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"Fearless" Threshing Machine.

We call the attention of farmers and threshermen to the advertisement of the celebrated "Fearless" Threshing Machine, elsewhere in this paper. Unparalleled honors have been bestowed upon this machine, at fairs and exhibitions, State, National and International. And, as equally good and reliable evidences of superiority have been given, by the highest authority, times without number, persons desirous to purchase will do well to consult the manufacturer of the "FEARLESS," MINARD HARDER, Cobleskill, N. Y.



## MEAT PRODUCTION.

We find, in the *Massachusetts Ploughman*, an address of M. C. Burleigh, on the above subject. It has particular reference to New England, but his remarks are of such a character that, in their most emphatic points, they refer as well to Maryland as to any other part of our country. We would be glad to give them in full to our readers, but are obliged to content ourselves with a few extracts. After announcing the subject, and referring to his presence "with good practical and theoretical farmers" he said:

That the production of meat food to supply the wants of a nation is an industry of the greatest magnitude and importance, no reasonable person can, or will, attempt to deny. It is not only one of the oldest industries of which we have any definite knowledge, but it is also one which has received great attention from man in all ages of time; yet never so much at any period of the world's history as within the last hundred years, and I might, I think, safely say within the past ten years.

Within ten years, millions upon millions of acres in our great West and Northwest, where countless herds of buffaloes roamed at will prior to that time, are now closely fed by cattle of improved blood, until every hill-top and ravine echoes and re-echoes to the shrill cry of the restless cow boy, as he watches and turns his wandering herds. Many timid stockmen in the Eastern, Middle and Northern States discovered (as they thought) such an increase of beef and mutton in the then near future as to utterly ruin their business. The Eastern cattlemen, especially, in many instances were ready to give up the battle even before their dreaded foe was in sight.

But what is the result? With that vast and in many parts barren, country filled to its utmost carrying capacity with cattle—a country extending from the British possessions on the North to the Rio Grande on the South—I say with this vast increase of grazing territory and herds and flocks—with all the present business depression, first-class cattle, *really good beef animals*, command a fair price; yes, a *paying price*.

But there are many, very many, people among us who cry out, when the subject of meat production is discussed, "Oh, our land is too dear! We cannot compete with the cheaper lands of other parts of the country." But let us look at this objection for a moment, and see whether it will bear the light. In England, where land is worth from £50 to £60 per acre (\$250 to \$300), the British farmer thinks he can hardly afford to do any other general farming otherwise than the regular rotation of crops to get the more cattle food. Mr. Pell, he believes that the production of meat and dairying is the only thing that can save the yeomanry of Great Britain from bankruptcy and ruin.

Ireland, with her bogs and marshes; her hillsides and rocky shores. Ireland, with an area less than one-half of New England; with less number of acres than the State of Maine; feeding (perhaps some one may say starving) more people than all of New England combined; and sending cattle, sheep and swine across her channel daily. We boast, Canada boasts, France and Holland boast, of the number of cattle and the amount of meat each one sends to help feed Johnnie Bull at home. Yet Ireland, with a population of 5,000,000 people to feed at home, raises and sends more live stock to England annually to feed her hungry millions than all these countries combined, by hundreds of thousands. In 1882, Ireland's surplus cattle, sent to England, numbered no less than 782,274—more cattle than one-half the number there is kept in the six New England States to-day. In the same twelve months Ireland also sent to the same market 558,404 sheep, and 512,906 swine, or 150,780 of the latter more than the total number kept in these six commonwealths, and of the former more than the entire number kept in New Hampshire, Massachusetts, Rhode Island and Connecticut, by 201,958 sheep.

Gentlemen, neither my time nor your patience will allow me to dwell longer upon this part of my subject as much as I would like to do so; but here is something that shows the possibilities of this grand portion of God's heritage, that is so dear to every New England heart. How can these results be accomplished? Never sell a ton of forage crops, but feed them all, with all the grain you can profitably raise. Buy all the corn and cake you can make it pay



to feed. I feel that it is useless for me to say to an audience composed of farmers of the grand old Bay State, save all the fertilizing material you can, and instead of depending upon commercial fertilizers to a large extent, (every farmer may use a small amount of commercial fertilizers profitably) put your money into cakes, or some other highly concentrated cattle food, thereby getting returns twice—once in meat products, and once in fertilizing material made at home. In your rotation of crops, let them all be so arranged and conducted as to secure the largest amount and best quality of that kind of crops—grass. Raise and keep no stock except the best. If our object is beef, we will keep good grade cows of such of the different beef breeds as we may fancy, keeping this one very important point ever in view, “early maturity.” This is our strong point—in fact, our ark of safety. Allow me to say here, that great scale does not always indicate early maturity. Breed to the best thoroughbred bull, also of the earliest maturing beef breeds. Now, having marked out a line, follow it. Don’t breed to a Hereford bull, or a Sussex bull, or a Shorthorn bull, for a year or two, and then alternate. Follow your line of breeding, and you will soon be on the way to a uniform herd of cattle.

The same arguments may be used in breeding for mutton. Leave the wool question out of account entirely. That will take care of itself, in a mutton breed of sheep. When a pound of early lamb will bring more than a pound of wool, it is useless to sacrifice qualities that will be the means of securing early lambs which will dress forty to fifty pounds in March or April.

Take care of the mutton and the wool will take care of itself. First get the best of the mutton breeds; have large, airy, but warm and dry apartments; secure plenty of early cut, fine hay or clover—both is better; have your lambs come in November if possible; if not, as near that time as you can; feed liberally and regularly, and remember this—eternal vigilance is the price of a good flock of sheep. Do not think of the advent of grass there is nothing more to be done for the flock until November frosts. See to it that the sheep have fresh feed and plenty of it. Castrate the ram lambs at the proper time, and then if you cannot get a fair price for them

young, feed them off the following winter with all the ewes that have had lambs three times. Make them all fat; don’t be afraid of a little grain; ’tis the liberal feeder that gets full pay, if any one. I have a flock of lambs at this time that were dropped in November, consequently they are now, Jan. 1st, from one month to two months old. We weighed a lot of them Dec. 30, all twins or triplets except one, their weight was from thirty-five to forty-two pounds each. Is it two much for me to expect them to weigh, April 1st, 80 to 100 pounds each? I think not.

The time was once when the quality of meat was judged by the amount of fat it was covered with. But that order of things is changed. The enlightened meat consumer has discovered that beef tallow, made from Western corn, covering the tough and tasteless sinews of Western steers, is very inferior to the choice cuts from New England prize cattle; and the prices that will be obtainable on this class of animals will never be lower than they are to-day. All the choice cattle, well bred and properly fed, that possibly can be raised, will ever be sought after by those who are willing to pay a good price for a first class article. The cry of over production in this class of food is a mere delusion. There will always be a demand for a really first-rate article. As the immortal Webster said to the young lawyer: “There will always be room at the top of the ladder.”

What incentive New England needs to-day more than any other to encourage meat production, is a fat stock show, and the earnest support of the agricultural press. The few thousands of dollars that have been appropriated by the State of Illinois for the encouragement of meat production and holding their eight annual fat stock shows, has been a most wonderful factor in building up the cattle industry of the Western States in general, and Illinois in particular. No man who has watched the progress annually made at their great National Exhibition can be but struck with wonder and admiration at the progress made in the improved cattle interests in the West.

If I should say that the appropriation of these few thousands of dollars for the above object has added millions of dollars to the nation’s wealth, it would be putting it lightly. The increase of wealth by the

stimulating effect of even such a meagre sum is almost incomprehensible. I will not say that a Fat Stock Show, inaugurated and held in New England, will produce equal results as the one held in Chicago; but I do firmly believe that if the six New England States would make an appropriation of \$10,000 annually, for ten years (let the money be raised by the several States, according to their State valuation,) and use it judiciously, for the promotion of meat production and dairy products, it would be the means of retaining the vast amount of capital at home, that is sent weekly to the West, for our meat supply. Whoever are instrumental in organizing a Fat Stock and Dairy Show in New England, to be held at the proper season of the year (a fortnight before the holidays,) will be entitled to recognition as New England's greatest benefactors.

There are some customs in older countries that Americans might imitate with advantage—such as offering special individual prizes for the production of the best. What a wonderful impetus it would give this branch of husbandry if some of the wealthy gentlemen of New England, after eating a dinner of choice Eastern beef or mutton, would only appropriate, say, \$100 and \$50 to the boys who will feed the best and second best pairs of steers, under three years of age.

Would I advise every one to go into meat production? By no manner of means! But I would have those go into it who have a taste for the business, and are, or may be, so situated as to be able to do so. Now, Mr. Chairman, I don't wish any to think for a moment that they have only to go into "meat production" to become suddenly rich. If any have such desire, an agricultural calling, in any form, will be too slow for them. But while "meat production," as an investment or business, may be slow at first, it is sure. While the practical stockman may not be able to show, in a few years, so much gain in ready money as those in some other branches of farming, yet there is a steady increase of wealth in many ways; not the least of which is in the largely increased fertility and value of his soil. If one farmer, by keeping all the choice stock he can profitably feed, makes his farm capable of producing double the amount that his neighbor can, who sells his crops from a farm of the same area, who

can compute the difference in profit of the two methods of management? No one, accurately. But we all do know that the one leads to affluence, the other to penury. The one means wealth to the proprietor, to the commonwealth and the nation. The other course causes depression, emigration, depopulation of some of the finest sections of our grand country—bankruptcy and suffering. Now, Mr. President, having said so much, I will close, with these few words of caution to any and all, who, as beginners, may enter into meat production—*don't expect too much from blood! Neither expect to succeed without it.* Both are indispensable to ensure success. Write this with indelible letters in your diary, your ledger, your cattle barn, and, above all, upon your memory. Good breeding, good feeding, comfortable quarters, careful handling, and kind treatment, all combined, are not only essential, but indispensable factors in profitable meat production in New England; and this is equally applicable to every country inhabited by a civilized and enlightened people.

#### ENSILAGE IN GREAT BRITAIN.

Besides the large amount of testimony collected by the private commission on ensilage, which the government has published, the Agricultural Department has been thoroughly canvassing the subject by a circular addressed to those interested in the process, and the results of this inquiry, which have just been issued, constitute an important addition to the existing evidence in favor of the system. The following is a summary of the replies received in answer to questions put by the Department:

"There are 1,183 silos in Great Britain in 1884 as against 610 in 1883, an increase of nearly 100 per cent. within twelve months. They vary in capacity from 96 to 55,440 cubic feet, the average being 2,801. In the majority of silos no drainage is used.

Of the silos reported 420 were entirely above ground, 450 partly, and 100 below.

Cost of silo varies from nominal amount to £400.

Results of feeding cows on ensilage:

Dairy cows appear to have been fed from ensilage in rather larger numbers than other classes of stock, and, upon the whole, the results appear to have been satisfactory.



It is often said to be preferred to all other fodder by dairy stock, as well as by horses, and to be less costly than the usual food.

A marked increase in the quantity and improvement in the quality of milk and butter appear generally to accompany the change from dry fodder to ensilage, as part of the regular food.

### ENSILAGE AT THE SOUTH,

The Richmond Dispatch publishes an article on this subject, by C. W. Garrett of Halifax County, N. C., from which we take the following extracts:

I have been putting up ensilage and feeding it for over five years, and my experience causes me to value it more and more highly as I learn to take care of it more cheaply. When I built my first silos, in the summer of 1880, the idea was that only those built of cement or brick, in the ground, would answer the purpose, and costing at least \$5 per ton to build. Now they are built on top of the ground, entirely of wood and earth, and at a cost of from 75c. to \$1 per ton. These keep the ensilage as well as those constructed of cement or brick, are much more convenient, and involve less labor to feed from. I have two wood silos, built in 1881, above ground, and holding 180 tons, both costing not more than \$125, the repairs since not exceeding \$25, which are now in good order and full of ensilage, and have been filled every year since they were built. The contents, without exception, have been fed in good condition. The silos I built in 1880 (of cement below the ground,) held 125 tons, and cost me about \$3 per ton. These also have been filled every year since (sometimes twice a year,) and the ensilage was not any better preserved than in those built of wood. Since I began to make ensilage, in the fall of 1880, I have fed my horses, mules and cows almost exclusively on it, and have yet to see any bad results from it; on the contrary, I have been able to keep them in much better condition than before I commenced its use.

My great plant for ensilage is the ordinary field or cow-pea. Of this I put up about 200 tons yearly, and it is greatly preferred by my stock to that made of corn. This pea crop I grow chiefly after wheat and oats. I break the land as soon as the

wheat is taken off, then plant in drills three feet apart, 8 to 12 peas in a hill, using the corn-planter, dropping every 21 inches; side them up once or twice, if need be, and grass is troublesome; plant from 25th of June to 10th of July, which gives ample time for the maturity of the plant for ensilage producing from 5 to 10 tons per acre, at a cost not exceeding \$1.50 per ton, and worth 25 per cent. more in feed value, than corn at any stage of its growth. I give to my mules and cows about 50 pounds of ensilage each per day.

After filling the silo, I first cover the ensilage with inch plank, laying them down lengthwise; then cover these with wheat or pine straw, to prevent earth or sand from getting in; then cover with earth 18 inches deep, and you may rest assured that your ensilage is safe. I prefer common earth for weighting purposes for two reasons; first, it is more easily handled, and second, it excludes the air better than anything else. When feeding the ensilage, first take out in front of the doors from bottom to top, about 2 feet; then on each side, until the entire end is taken out; then put in good substantial props, to hold the planks and keep the weights from bending them down, which repeat, propping every 3 feet as the ensilage is taken out, until the whole is exhausted. Care should be taken that this propping be well done; otherwise the plank above may give way, and endanger the safety of the feeders.

### Remarkable Recuperation.

D. M. FERRY & Co., the well-known Seedmen, of Detroit, Mich., announce that they are on their feet again and ready and anxious to receive orders for seeds from *every one* of their old customers, and from as many new ones as feel kindly disposed toward them. They are in condition to fill promptly every order with new seeds of the best quality.

THERE are more diseases than there are visible stars, but there is one remedy that goes to their common source in secretions and the blood. That is DR. WALKER'S VEGETABLE VINEGAR BITTERS, a prompt and perfect remedy for all diseases of the blood. It gives new vitality to the secreting and excreting organs, and fills the arteries with new material for strength.

Ask your friends to subscribe to the FARMER.



### APPLES AS A MARKET CROP.

Those who have kept up with the northern market quotations the present winter, are aware that the prices of apples have ruled very low. Many farmers declared they could not even gather and pack the fruit for the prices offered, say seventy-five cents to one dollar and a half per barrel.

And yet it is well known that a bushel of apples costs the farmer comparatively little to grow. A bushel of corn may, and often does, cost the farmer as much as the whole annual expense of an apple tree. But one tree may yield ten, twenty bushels of apples. The corn would sell for, say, sixty cents. The apples, at seventy-five cents per barrel, bring thirty cents a bushel. If they cost but six cents there is a gross profit of twenty-four cents on the apples.

But this is an extremely low price for apples. With the price for winter apples at two dollars per barrel, eighty cents per bushel, it pays well. There is a large profit on growing apples at this price. Few crops pay better.

Usually summer apples command a fair price also, and you can get readily two dollars for salable winter apples, at any local store, from and after the first of December. The small stock of winter apples you can turn into cider, and retail at forty cents the gallon.

Of course we believe there is profit in growing apples. Perhaps the case is different elsewhere. Some sections may be overstocked. We believe, however, that it pays to grow apples even for hogs alone. The farmer with plenty of pigs need never be at a loss what to do with his apple crop.

An orchard is no expense after it gets into bearing. Enough potatoes or roots may be taken from the land to cover all expenses. The fruit is a surplus crop, and if no more than a barrel to the tree, it is a

pretty fair profit on the investment. It is a crop that does pay, and it is one that may be made to yield large returns.

To the Editor of the Maryland Farmer.

### NOTES FROM KENT COUNTY.

When my last notes to you were written the earth was covered with its winter coat of whiteness. Today a new view is presented to the eye. The shooting leaves of the early *poa pratensis* is a reminder that spring is drawing near, and indicates the effect of the manure brought down with the falling snow in the inorganic condition of carbonic acid and ammonia.

The peach crop so far in Kent is considered safe, and if no greater calamity than a long cold winter occurs, the prospect of an abundant crop can be looked for, as so many new orchards will come in bearing this year. The Tolchester beach is likely to present to the seeker of health and enjoyment more than its usual attractions, as it is said extensive improvements are contemplated which will add beauty and comfort to the well known and desirable resort that so many thousands enjoy during the summer season. Repeated experiments by the writer clearly indicates that along the shore in this portion of Kent the atmosphere is highly impregnated with ozone or nitrous acid; (either showing similar reactions;) and the question has been, will this account for the almost entire absence of consumption and hay fever so common in many portions of our county? Within the past twenty years I have never seen or heard of a single case of consumption among those who have passed from infancy to man or womanhood in this locality, and after active enquiry among the medical profession, I have not heard of a single case of autumnal, or hay fever, or asthmatic trouble, except one, and that some miles from this neighbourhood. If hay fever is absent from Tolchester, it ought to make a desirable retreat for those who are such great sufferers from the middle of August until frost time.

This village is growing rapidly, and now presents quite a city like appearance from the bay. By the dropping of the leaves, many neat cottages are brought into view that are hidden during the growing season. Local option continues popu-

lar here, and all parties join hands in saying it has done much good, by keeping the young men away from the low society always found collected around a whisky shop, especially such as is usually found at country cross roads and small towns. May they never again be seen in Kent, is the prayer of our wives, our daughters, and sweet hearts, and all the better class of our citizens. The recent revival in the Methodist church has added a number of new members. The fisherman, and many reside in this village, are busy at work getting their seines ready expecting an early run which they say is very common after a long winter. Among the new institutions of recent introduction, the barb wire fence has been one of the most successful, and the old post and rail, and worm fence will soon be in company with the old reapers and threshers—things of the past. The self binders and traction engine threshers are all the go.

Rock Hall, Md.

A. P. S.

#### A PERFECT CUP OF COFFEE.

An Atlanta lady who is an excellent housekeeper, and whose coffee has been praised time over time, gives the following as the rules and regulations for making that delightful beverage: "It is an easy matter to have good coffee. In the first place, the coffee must be kept in an air-tight canister, and must be of a good quality, and be ground as is needed. The coffee pot must be kept scrupulously neat, and must be kept in the sunshine, whenever there is any sunshine. The tea-kettle in which the water is boiled must also be kept clean, and fresh water must be used for making the coffee. The amount of coffee used must be bounteous, else the product will have a limp taste, and will fail to give satisfaction. If a good supply of crisp freshly ground coffee is put into a clean pot and fresh boiling water is poured on and the coffee is allowed to boil awhile, good coffee is the result. At our home we make coffee extra strong; use about a third of a cup of good fresh milk, with the cream on it and it is delightful. It is far different from much of the alleged coffee that a combination of stinginess and carelessness forces helpless people to drink." The lady is right. Eternal vigilance is

the price of good coffee.—*Atlanta Constitution.*

#### PREPARING POTATOES.

A good potato, when cut, will show a light cream color, and a white froth will be the result of rubbing the cut surface together. Reject that variety where drops of water appear. Another test is to put potatoes into a solution of salt; the good will sink, the poor float. The juice of the potato is disagreeable, if not absolutely poisonous, and should always be removed. This poisonous element escapes in the steam when the potato is baked and remains in the water where they are boiled; hence that should not be used for yeast, as is sometimes recommended, or for any food.

For soups, etc., potatoes should be sliced, covered with cold water and allowed to stand some time before using. The water draws out the juice and keeps the slices from turning dark, as they would if exposed to the air; it also extracts the starch from the little albuminous cells, opened by cutting, which is desirable to render fried potatoes crisp.

Select those of uniform size to cook together, unless it is desired to have some done before the others. Much of the saline virtue of the potato is lost by removing the skins before boiling; still, when old, an equal advantage is gained if, after paring, the vegetables are left in water. Cook in boiling salted water, not allowing the boiling to stop when once begun until the potatoes are done; then pour off the water, uncover the kettle, allowing the steam to escape, thereby rendering the potatoes mealy.

The secret in mashing potatoes is to have all the utensils used as hot as possible, and beat the mass till light instead of pressing down smooth and solid, adding cream, butter and salt at will. A desirable result is reached by rubbing the mashed potato through a hot colander and leaving it just as it falls into the dish.

Baked potatoes should be served the minute they are done; better serve with a bone in them than wait till they become soggy. The average oven does not heat as quickly as water on top of the stove will boil, so when baked potatoes are wanted in a hurry they may be partially boiled then put in the oven to finish.



During the cold weather it is quite as well to wash a week's supply of potatoes at once as only enough for one meal; a short broom will shorten this process. After washing, dry well, and keep in a cool, dry place. The potato is a valuable agent for clarifying fat of any kind and absorbing unpleasant odors. Put thin slices in the fat and fry till crisp and brown, then strain the fat and it will be ready for use. A few slices in each kettleful will keep the odor of doughnuts, etc., from penetrating the house and prevent the fat from burning. Grated, scalded with boiling water and strained, potatoes make an excellent starch for dark fabrics. The juice is recommended for chilblains. Instances are given where flowers have been sent long distances, kept fresh, in a hollowed potato.—ANNA BARROWS in—*Good Housekeeping*.

#### SHALL WE HAVE CREAMERIES.

In past numbers we have placed our influence in favor of establishing throughout our state these helps to the dairying industry of our country. Butter and cheese made by hand bring very little return to the farmers for their milk, compared with what would be theirs if creameries were within their reach. The produce of 150 cows brought together at the creamery will make sufficient business to warrant its establishment, and with an efficient manager, will return good dividends to its proprietors. This is a fact so well settled that it is no longer a matter of discussion. Wherever they have been organized on this basis, the success has been marked and immediate. In our state the market for good butter is always excellent; and even the tub butter from the New York Creameries commands exceptionally good prices. We therefore, in this way answer that important question which always comes first, "Will it pay?" It always has paid well; it is paying well now wherever they are established, and we are satisfied it will pay here.

There are other points, however, to be considered. What an amount of labor do

these creameries take from the shoulders of the farmer's wives and daughters! They are a great blessing in this respect. The setting of the milk, the churning of the cream, the working, and salting, and caring for the butter, and the marketing of it, are all attended to by the creamery; and the farm work is made by all this so much lighter and more pleasant.

Baltimore is a large city and will without doubt attract to its market the products of northern creameries to some extent; but if they can afford to pay large transportation charges, why should not creameries in our own state flourish, with none of these charges to burden them? To our mind creameries within our own state should drive out the butter which now comes from New York, New England and the West. It is not a credit to our people, that the best prices that are paid for butter go to other states; and that the dealers in order to secure high prices must label conspicuously some other state on their goods.

We have placed the number of cows at 150; but creameries have been run successfully on 50 cows. The machinery that will manufacture the cream of 50 cows, will, with very little additional expense, manufacture the cream of 150 or 200 cows. The profit is proportionately greater.

We recommend therefore, the establishment of creameries throughout our state, because we are sure it will be a paying institution to our farmers; because it will lighten the work, always heavy on the farm, to the wives and daughters of the farmers; because we are able in this state to make just as good butter as in any state of our Union, and we have state pride enough to wish the best prices of gilt edged butter to be paid to our own farmers, and not to those of New York or Wisconsin.

Those who have used the Boss Zinc and Leather Collar Pads and Ankle Boots say they are the best and cheapest, because most durable. They will last a life time. Sold by Harness makers on 60 days' trial. DEXTER CURTIS, Madison, Wis.



To the Editor of the Maryland Farmer.

### ELECTRICITY IN AGRICULTURE.

A hundred years and more have passed by since Franklin began his investigations into the nature of electricity. Since then many additional facts in relation to it have become public property. And yet, it is safe to assert that much is hidden in the womb of secrecy, relative to this subtle and powerful agent. The full extent of its action and influence, it is believed, is far from being known and defined.

The influence of electricity in agriculture is, doubtless, very great, greater, probably, than in any other department of industry. Its effect in factories and milling establishments is powerful. It doubtless exerts its force on suspension bridges and railroad trains. It is felt in mines, and a hundred other places. But nowhere perhaps, is its agency more potent than on the farm—in the open field, within the soil, upon animals, upon ourselves.

To what extent the farmer is indebted to electricity for the growth and maturity of his crops, to the action of soils, or the strength of animals, is one of the secrets that yet remains to be revealed by the investigations of the agricultural scientist. A few desultory facts here and there have been unearthed within a year or two—enough only to show what may possibly be in store for us.

The subject is fascinating, but there will be need of many investigations and observations. Delicate instruments may be required, and more time than practical farmers can give to the subject. Yet no doubt the farmer can do something. Farmers are as capable of close and intelligent observation as other men, and this is what is needed to settle a question of this sort. Farmers should be good observers. Some men can learn more on a farm than others by the tour of Europe.

But some would ask: What practical good to the farmer may be expected to flow from an acquaintance with electricity? We cannot answer. There might be more than any one has yet imagined possible. There is no doubt but that the new subject of nitrification is related to this one of electricity. Possibly is is but the same force under another name.

If one is the other, and either can be controlled practically by the farmer, in any

such way, for instance, as the application of straw or other coarse material in the form of mulch, by the use of sharp sand on cold clays, or peat on tenacious soils, then it is worth while for the farmer to give attention to it. How to increase the electricity of soils will thus become a question of as much importance to the farmer as the supply of lime, potash, or nitrogen.

We are yet far from knowing all that can be known, or that it is to our interest to know, relative to the fluids and gasses of the atmosphere, and their effect on crops. The intelligent farmer has a broad field before him. Some farmer's boy now living may make himself famous, by giving his hours of study to this science. Get a natural philosophy, and go ahead.

Va.

B. W. J.

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### LUCK ON THE FARM.

A Wisconsin dairyman uttered a great and pregnant truth when he remarked at a meeting of dairymen that "it was not by a special dispensation of Providence that a certain farmer received \$98 per head for the yearly product of his cows, while a neighbor received only \$30 per head." "So it is not a special act of Providence," remarks Mr. Henry Stewart, "that on one side of the fence corn yields 80 bushels per acre and the hay three tons, while on the other side the products are 30 bushels of corn and a ton of hay." An enterprising farmer writes that he is cutting his second crop of clover, which yields a full ton per acre, and his neighbors wonder how it is. The secret is that this farmer used plaster on his clover, which made all the difference; and his other crops are equally conspicuous and remarkable because he uses fertilizers liberally as well as manure. The rain falls on all alike, but the better farmer gets the most good from the rain and the sun because he prepares and enriches the ground better, and so gives the natural elements better chances to extend their benign influence.—*Rural New Yorker*.

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KNOW THYSELF by reading the "Science of Life," the best medical work ever published, for young and middle-aged men.

## VIRGINIA FARMING.

Our farm of 400 acres, half of which is timber, is ten miles from Fredericksburg, Va. My father is still living, and I have no wife, though thirty-three years of age. We have had an entire month of snow, and we use a sleigh which I made entirely without help. The sound of the guns at Fredericksburg was common when I was a little boy. A cavalry engagement took place not far from our house, in which Gen. Kilpatrick made his headquarters for some time. We had but four slaves, and used to work with them before the war. We can hire plenty of help on the farm at from 40 to 50 cents a day with board. We do not hire much except in harvest.

Our fuel is wood entirely. The forests swept away by the war are, many of them, grown large enough for wood, especially the pines. We raise no tobacco in this part of Virginia.

Our chief crops are wheat and corn. Wheat sells at the mills at Fredericksburg, this winter for 80 cents per bushel, corn for 45. There is little or no market for butter. Eggs get as low as 10 cents a dozen in the summer. Four horses are sufficient for the work; these, with fifteen sheep, five cows and a few hogs constitute our present stock. We just get a living, that is all. Western competition keeps down the prices. Our land must be enriched every year for wheat and corn. Fertilizers are expensive but necessary. I often feel as if I would like to go West and better my condition. It is very lonely on the farm after a month's visit in Baltimore. Washington—sixty miles by railroad—is our best market. Fredericksburg has a good water power and some thriving grain mills. Everybody, colored and white, goes to live in towns and cities if he can. Many leave their farms and go for the winter.

Our nearest postoffice is six miles. There are Baptist and Methodist churches near by. One church, Methodist, was burned during the war. The Union army treated us fairly well, but one day a soldier rode by with one of our sheep on his saddle and cried out to father: "Say, old man, isn't it a fat one?"

I was down at Petersburg the other day. A Northern man was making addresses against war. Everybody liked to hear him. We are sore and sick from war.

The tobacco and peanut factories flourish. Petersburg has doubled its vessel tonnage since 1877. It exports 40,000,000 pounds of tobacco now, where it exported 3,000,000 ten years ago, and sends off 2,000,000 bushels of peanuts where it exported but 500,000 ten years ago. In these two industries Virginia beats the world. Tobacco is her hereditary crop. Peanuts are grown chiefly in the light soil of the coast counties, east of Fredericksburg, and are the best that go to market. Our legislature is hotly discussing a Railroad Commission with power to fix freights. The farmers advocate the bill.—VIRGINIA, in *Farm Field and Stockman*.

To the Editor of Maryland Farmer.

## CORN STALK BUTS FOR FEED.

It was my privilege to say a few words about the feeding value of corn stalk butts in the late meeting of the Connecticut State Board of Agriculture, at Norwich, which I was told afterward were of great interest.

A few years ago, after I had used the ears and tops of my sugar corn I stripped the blades from the butts, run them through a feed cutter, and a hand cider mill and press, and then in a common wash boiler on the kitchen stove, I evaporated seven gallons of the corn juice to one. It made a heavy syrup, by some preferred to sorghum.

The syrup has kept in good condition for three or four years. For those who like it it would be an economical source of supply to the family.

The variety was *Mammoth Sugar Corn*; it was grown in drills; stalks twelve to sixteen inches apart; each rod in length gave a gallon of juice; from which you can calculate readily what would be the yield per acre, and also estimate its feeding value. Yours truly, W. W. MEECH, N. J.

## Farmer's Notes—"Sharpsers."

Beware of sharpsers, who will sell you for a trifle something of large value to you, and take your signature to what is apparently an order. That innocent order will very likely turn out to be a note, which you will have to pay in your nearest bank.



## AMERICAN AGRICULTURAL ASSOCIATION.

This organization met on the 16th of February last at the Grand Central Hotel, New York, and continued three days, holding two and three sessions a day. Most of the States were represented and several foreign countries. This was the sixth annual convention held by this organization, four of which have been in New York, one in Chicago and one in New Orleans. We have had the pleasure of attending each of these conventions and always found the papers read, and the discussions to be instructive and interesting; but none have been more so than the one held last month. We should be glad to publish all of these papers if we had room to do so, but not having space, we can only give short extracts from the papers at this time, but shall again refer to them.

The first paper read and discussed was from A. J. Caldwell, member of Congress from Tennessee. He spoke on the use of the signal service in agriculture. He has introduced a bill to appropriate \$50,000 for new signal stations. He told the Convention that millions of dollars could be saved to farmers by an improved system of signal service to warn them of frosts, rains or blizzards. The intelligence would be distributed all over the agricultural localities by flag signals by day and lights by night.

The Convention adopted a resolution endorsing the bill. The Convention listened with much interest to a paper read by P. T. Glass, member of Congress from Tennessee. "What agriculture has done for us and what we have done for agriculture," in which he said:

More than half of our population are engaged in farming. They form the real basis of our prosperity. They pay half our taxes. But what does the Government do for them? It has given \$105,000,000 to rivers and harbors, three times that to rail-

roads and untold millions to protect manufacturers. Since the federation it has given in all but \$5,000,000 to agriculture. France gave \$20,000,000 last year to encourage the farming interest, Brazil \$12,000,000, Russia \$11,000,000, Austria \$5,500,000, Japan \$1,000,000, the United States \$650,000. The present system of legislation which destroys our foreign markets must be changed. Besides that there are three demands that the farmers ought to make of Congress: To raise the Bureau of Agriculture to a Department with a Cabinet officer at its head, to extend the Signal Service, and to appropriate money for establishing experiment stations in connection with agricultural colleges.

Mr. Glass added that he had introduced a bill in Congress to require foreign consuls to make detailed monthly reports of the condition of agriculture in their different consulates, in addition to the regular reports on commerce and manufactures.

Thomas H. Dudley, president of the Board of Agriculture of New Jersey, delivered an address upon India wheat, in which he declared his belief that India could produce wheat far cheaper than the United States. Farm hands are hired there at seven cents a day and farms can be purchased for a song. The only trouble in India is the difficulty of transporting the wheat to the seaboard. But even this does not prevent the merchants from laying down wheat in London at seventy-five cents a bushel, and India wheat could be profitably sold in the United States at \$1 a bushel. Mr. Dudley said that if he were going into wheat raising to make money he would go to India.

This paper was ably discussed by Dr. Holt of Virginia, Willis of Delaware, and many others, taking a deep interest in the discussion.

Mr. S. Sato, from Japan, once connected with the Johns Hopkins University, read a very interesting paper, in which he said:



"The present agriculture of Japan may be defined as an extensive farming, based upon the experience of ages. The farmer of Japan cultivates a small piece of ground, and cultivates it thoroughly and up to the fullest capacity of the soil. There is a tendency in every land that makes it subject to the so-called 'law of diminishing returns.' The agricultural land of Japan may be subject to this economic law, but it is a wonder what inexhaustable resources the agricultural land of Japan has. For succeeding generations and with no rotation whatever, the same piece of land has received the same kind of crop—that is, rice—but an exhaustion of the soil has seldom been complained of by the farmers. But the whole secret of this successful cultivation of rice is in the utilization of the night soil, sea weed, fish guano, lime, &c., as well as the thoroughness of cultivation. Had it not been for the economic use of these materials, the agricultural land of Japan would have become centuries ago as barren as the great desert of Sahara.

"But the great drawback to Japanese farming is the lack of improved machines and implements. The farmers still use simple primeval tools. Recently, machines of modern invention have been introduced, but they are in most cases useless on small farms of Japanese peasants. The average size of the farms of Japan is about four acres. But if the farmers reform the present system of farming, the size of the farm can be increased, and the more remuneration can be obtained from farming. The introduction of live stock and the encouragement of the culture of other grain besides rice are the two important things to be aimed at. The absence of live stock as a part of the general farming is a marked feature in the agriculture of Japan. Again, almost two-thirds of the cultivated land is devoted to rice culture, and the rest for other grains and mixed products.

Charles D. Wetmore, of California, Chairman of the Committee of Viticulture,

among other remarks gave the following.

"California," he said, "produces 15,000,000 gallons of wine a year. In three years it will be producing 60,000,000 gallons. California has more area for vine-culture than all Europe and raises all the varieties of grapes that grow from Germany to Spain. What we need now is that the Government inspect, tax and stamp all native wines and expose the immense sale of imitations and adulterations."

P. C. Reynolds, Editor of the *Rural Home* read a paper on the development of agriculture in Western New York.

At one of the evening sessions Dr. Holt of Virginia, occupied the floor for about an hour with one of the most brilliant and interesting discussions it has ever fallen to our lot to enjoy. It was not wholly confined to the one subject of agriculture; but was full of felicitous descriptions of the past, the present and the future of his state. While it included crops and agricultural prospects and the views of prominent Virginians on the general subject, it was replete with the most telling facts of a cheering and encouraging character.

Dr. Holt was followed by Willis, of Delaware, Northrop, of Georgia, and W. F. Bearsley, of North Carolina and others, each describing the crops and the agricultural prospects in their respective states. W. P. Corsa, of Delaware read a paper on the Fruit Exchange established in his state, which introduced a spicy discussion between the Delaware delegates and the New York Commission Merchants. This paper which we think will interest Maryland Fruit growers will be found elsewhere in this issue.

Invited by the organization to take part in the discussion, we read a paper which will be found in this number. The resolutions attached were discussed by Luce, of Mich., Dudley, of New Jersey, Murphy and Willis, of Delaware, and others, and unanimously adopted by the Convention. A

committee of five were appointed to proceed to Washington in the interest of the resolutions, as follows: F. H. Dudley, New Jersey, P. T. Glass, Tennessee, F. C. Stevens, N. Y., T. J. Murphy, Delaware, E. Whitman, Maryland.

This Committee in due time visited Washington and had a very favorable hearing by the Committee on Agriculture, who are a unit in behalf of the Hatch bill for Experiment Stations.

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#### MEN TO BE HONORED.

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We give below the paper read by the Editor of the MARYLAND FARMER, before the American Agricultural Association, held at the Grand Central Hotel in New York, February 16, 17, 18.

"It is observable that some men are of that class, who having a useful object before them, persist in their object until it is accomplished, for the benefit and blessing of posterity. For example, Columbus travelling from land to land with a constant reiteration of his desire to sail to the West and discover the Indies, long the great storehouse of wealth in the eyes of Europeans. His patient labor and his final discoveries have placed him among the great. Perhaps the name of the giver of the telegraph, may be placed in this catalogue, and the giver of the electric lights may also find a place here. They persisted in one line of labor, through years of general failure and partial success, until their labors were at last crowned with genuine triumph. It is hardly necessary to multiply examples of this character.

But certain ones in the field of Agriculture have trodden in these same footsteps; and why should we not place them among this class of great men? They have labored with a disinterested generosity to this end; for they could not reap any selfish benefit from their labors. In this

cultural implements and farm machinery. The old mode of cutting grass and harvesting grain seems now a strange sight, when we chance to see it on ground where the respect they stand with Columbus, even more than with these others; for these last were richly rewarded in dollars for their work, while Columbus and these great agricultural benefactors, simply enjoyed the satisfaction of giving to the world the grand results of their labor, for the world's benefit.

It is the same in all the various departments of agricultural improvement. Those who by skill and toil exercised through years of patient waiting have built up the powers of the horse, till the royal blood of the racers are with us, or the faithful and energetic draft horses make us to rejoice; and others who by equal care have reared to their high state of perfection the Jersey, the Holstein and other breeds of cattle; they should be carefully placed in the list of great men and their names handed down for the admiration and reverence of coming generations.

Not less should we give the honor and praise to those who have labored to perfect our fruits: The apple, the pear and the peach have been brought to their present stage of perfection by patient toil; as have also the smaller fruits, strawberries, black berries, raspberries, grapes, etc. Their present advanced condition represent the labor and patience of those who should be classed among the great and the good of the country. Then, also, those who have in the same way perfected our vegetables, until we can scarcely recognize some of them as the same species when compared with the original. This is notably the case with the tomato, and various other vegetables. Place the names of these men among the great of this present age.

No doubt among this class should be found also those who have made during our remembrance so great a revolution in agri-



teams cannot be used. Those who have contributed to this revolution should be placed among the benefactors of our race; for their work is vastly greater than that of Peabody or Girard, since it reaches vastly greater numbers, and contributes to the happiness of myriads who can never realize a benefit from the benefactions of those others.

Thus we see agriculture has its heroes, its benefactors, its great and good men, whom we should be glad to remember, and whose names should be handed down as an heirloom to the farmer's children, and as part of the blessing which belongs to the farmer's life, which the farmer's avocation has given to our humanity.

All these reflections remind us that we have now in our midst a class of noble men who are devoting their time and their best energies to elevating the masses of our people through scientific experiments in agricultural fields, and by placing within reach of the farming community the means of education and elevation, such as never before has been afforded them in the history of the world. These men have been devoting their means and energies to the establishment of Agricultural Colleges and the founding of Agricultural Experiment Stations, in past years; until their labors have at last resulted in the established fact that these institutions are the greatest blessing to the farmer that this country has thus far unfolded. These labors have resulted in our general government and our several state legislatures recognizing the importance of these institutions, in a measure, and aiding in their establishment and support. Nevertheless, a great deal in this direction remains to be accomplished. The Farmer's work should be recognized as a science, and the broad field of his labor should be founded upon scientific principles. The Farmer himself should know the basis of all his labor and the reason for every move he makes in the cultivation of

his soil. The work should be reduced to such a standard of knowledge that very little could be left to the field of uncertainty. To accomplish this, large and continued help is greatly needed from the state and the general government, and every word that can give force to this fact, and aid in securing it, is of vital importance to the Farmer.

In accordance with these views, we offer the following preamble and resolutions for the consideration of this association.

*Whereas*, the general welfare of the country, and especially the welfare of the agricultural citizens of the country, demand more ample facilities for a thorough education of our farming interest; therefore

*Resolved*, that we urge upon the Legislatures of the several States to make liberal and ample appropriations to their Agricultural Colleges and Experimental Stations.

*Resolved*, that we consider the bill introduced by Mr. Hatch to the House of Representatives for the appropriation of \$15,000 per annum, to establish Agricultural Experiment Stations in connection with Agricultural Colleges in the several States and Territories of great importance to the agricultural interest of this country, and the same bill having been twice read in the House and referred to the Committee on Agriculture, we recommend its final passage.

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STOCK BREEDERS' ASSOCIATION.—The Maryland Improved Live Stock Breeders' Association held its annual meeting last month. The board of directors for 1886 were chosen as follows: John G. Clark, Alex. M. Fulford, John E. Phillips, E. R. Dennis, Chas. K. Harrison, T. Alex. Seth, W. H. Whitridge, Edward B. Emory and E. G. Merryman.

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Two or three bananas, sliced in a bowl of bread and milk, makes a delicious and sufficient lunch.

To the Editor of the Maryland Farmer.

# DELAWARE FRUIT EXCHANGE.

BY WM. P. CORSA.

The following is the very interesting paper, read before the American Agricultural Association, and referred to in another part of this number.

Though Noah, Daniel and Job were in the land they would be able to save neither son nor daughter from the curse attending the usual methods of marketing all farm produce.

In the nature of things the fruits of all agricultural labor are as intermittent as the seasons, and they find for their marketing both natural and artificial hindrances that lay a heavier import upon them than is their first cost.

To open the gates as wide for the agriculturist as the East is from the West, or the North from the South, is a work that farmers must do for themselves or it will never be done. To the point where the farmer has ever chosen to make his market, there a price has been paid him for his produce, commensurate with the facilities of its ready conversion to the needs of consumers. When delivered at the door of the consumer it gives the largest price, and when delivered at the farm it gives the smallest price, other things being equal. The expense and risk between these two points go to make an indefinite sum that generally carries with it the farmers' profits. All farmers cannot live so convenient to the consumer as to be able to deliver in their own wagons the produce of their acres, and hence there must be middle-men or dealers, who, for a profit, safely and quickly distribute the crops into the hands of consumers. For a previous century, past methods of making this distribution may have sufficed, but they bring confusion and loss to every farming interest in these times.

"What then" some one may ask, "can be presented that is better?" We reply, an exchange with auction sales. Let each specialty of agriculture gather its producers and dealers into an open market near to the farm and sell at *public auction*. But do I hear the cautionary cry "beware of gambling!" Ah, but that gambling of which you read is in Exchanges established by dealers for their sole accommodation and is but a bet on what the price may be at

some future day; or a deal in produce that has existence only on paper. When investments are made in the farmers' Exchanges, in things that actually exist, it can be at worst only speculation; and this in a market that secures ample information to all members, and ready facilities for determining values by supply and demand, is confined within safest limits.

Take, for instance, the matter of milk supply to a large city; now dealers fix the price in accordance with the expense and risk *they* must incur, and the profits they wish to make; producers have little voice in determining the whole matter. Hence there come "milk wars," a turning out of cans, and generally an unsettled market. Our Exchange would first set a committee of competent men at work considering all the difficulties that could possibly attend the Exchange method of marketing each special product, with instruction to square every requirement of the organization by the law of supply and demand, and to effect an organization under a charter broad enough to allow for growth. It may be, that in the case of a milk supply, say for the city of New York, a monthly meeting of the Exchange for an auction sale would be frequent enough. Even this would be far better than a ring of dealers meeting with a ring of producers and "fixing the price" for six months, during which six months the climate and other circumstances make all sorts of havoc with the plans on both sides.

So you may go through the list of farm products, and for each provide in the same or separate Exchanges, for a more satisfactory adjustment of risks and margins than now exist; but an Exchange that is not convenient for the attendance of the farmer is of no benefit to him.

I have suggested the selling of milk, by such open auction frequently held, not because I have made any special study of the difficulties that environ it, but because I think we can match the most difficult problem by our experience in the Fruit Exchange of Delaware.

Fresh peaches, more or less uncertain in quantity positively perishable in quick time; as difficult to grade as the most difficult thing produced on the farm; produced by the masses in varying quantities; shipped from many stations to points near and far; and in season only a few weeks in the



year. If these can be matched by an equally difficult product to market systematically, we have never seen the problem stated. Yet two years of active operations by the Delaware Fruit Exchange have demonstrated that this is the only rational way for marketing peaches, alike satisfactory to grower, dealer and consumer.

It is not my desire, nor the design of those who sent me here, to occupy your time with praises of what this Exchange has done for the fruit interests of Delaware and Maryland, beyond so much as may elicit your interest in a unique method of marketing, that we are persuaded may bring to you, as it has brought us order out of chaos. With my colleagues, I am willing to submit to any catechetical inquisition upon the matter that your interest prompts. We expect this season to market small fruits by the same method.

#### Hornless Cattle in Mexico

One of the largest stock growers in Mexico, delivered an interesting address before the American Agricultural Association, in which he stated it would be difficult to find a cow in his section of country with horns. The general practice was to take the calf when about three months old, cut the horns close to the head of the calf, and with a hot iron sear them over and immediately wash the same with lime water about as thick as cream, and in less than ten minutes the calf would be feeding. This cutting of the horns seemed to change the disposition of the animals, and they come to the trough to drink and eat as gentle as lambs.

The subject of Ensilage and Oleomargarine was fully discussed and will appear in our next.

MONTGOMERY AGRICULTURAL SOCIETY—ROCKVILLE, MD., Feb. 17.—The annual meeting of the Agricultural Society of Montgomery County was held here to-day. President R. B. Farquhar, on calling the society to order, said:

Notwithstanding the ne receipts from the last fair were not so large as had been hoped for, they had been sufficient to pay all expenses, besides reducing the mortgage \$400. The management in the last two years had paid old debts to the amount

of \$1,200, leaving a mortgage debt of \$1,600. He felicitated the society upon the prosperous era they were now enjoying.

The following officers were elected: President, W. E. Muncaster; Vice Presidents, O. C. Green, F. P. Hays, G. F. Snouffer, J. B. Diamond, S. D. Best, A. M. Stabler; Secretary, A. H. Fletcher; Treasurer, Philip D. Laird; Executive Committee, W. E. Mannakee, Col. Washington Bowie, R. H. Miller, B. R. Codwise, C. Y. Wilson.

## THE DAIRY.

### CRUMBLY BUTTER.

Why we should have crumbly butter set before us to eat at least ten times per week when on our travels is a mystery, but only so from the fact, that the person who made it did not understand his business. It was too cold when it came together, and it was too cold when worked over.

In winter butter fats are harder than in summer, and needs more heat. The cream should be ripened at a higher heat. The cream should, if "slow" in coming, be warmed up above 62°, and when the butter comes, wash it out clear of butter milk, with water, not much below 60° and then work it over and salt it before it gets hard. Do all this work at the one operation. It does not hurt butter to warm it up to a point where it works "just right;" for it has now been ascertained that the butter of not only different cows, but at different seasons, as well; has varying melting points; and if this is not taken into consideration, crumbly white butter will result, if these facts are ignored, and we continue to make butter by a "one set way." Good butter making implies understanding some of the requirements of the art.

THE fences in the United States have cost nearly \$1,500,000,000, or a sum nearly equal to our national debt.

You will confer a favor by showing the MARYLAND FARMER to your friends.

To the Editor of the Maryland Farmer.

A GOOD DAIRY COW.

There seems to be a general waking up of the dairymen to the fact that a good dairy cow is good for little else, and that beef, milk and butter are not usually wrapped up in one cow hide. As dairying drifts toward a business it is seen that a cow must have some specific purpose to be profitable. The dairyman must now have his dairy trained toward the demands of his market. Butter, cheese, or a milk supply for the city. It would be ruin to milk Jerseys to supply the general city milk market; or milk cows with a great flow of milk to engage in butter making. The cow from whose milk 30 pounds is required to produce a pound of butter stands no show beside the cow half as large whose milk can be depended to produce a pound of butter from each 17 pounds. The general purpose cow is a myth in these years and the man who depends upon her will get left. The day of high prices, that made the excuse for a general purpose cow possible, has passed away; and only cows especially adapted to the wants of particular localities can be now kept at a profit, and the farmer who gets into this drift of special cows, and maintains their superiority by special and well directed breeding so that there should be an element of "like producing like" to guarantee transmitted excellence, will be the successful dairyman in the future.

Ohio.

JOHN GOULD

POINTS IN GOOD MILKERS.

An eminent stock-raiser has given the following as necessary qualities to be observed in selecting a first-class milch-cow. They may be regarded as "some of the many" with which experienced breeders are so familiar. A good dairy cow has a good deal of brain; she is wide across the top of her head, wide between the eyes, and is a very sensitive animal indeed. A thunder shower will often reduce her flow of milk; a blow from a whip will often reduce it. Her cerebral organization and the functions which are devoted to the production of milk are delicately formed. When you wish to select a milk-producing cow, you want a firm, broad head, a clear, bright, expressive eye; and if the horn is a

little large at the base it does no harm. You want the shoulder to be comparatively loose, not compact like the shoulder of a beef-producing, fattening animal, thrown on apparently; a good milking cow always has this peculiarity. If a dairy cow drops a little behind the shoulder do not let it disturb you. A dairy cow's back and rump should be as level as those of a beef producing animal; her fore feet should be broad, firm, and large in proportion to her leg; her leg fine below the knee, and compact and strong above. The hind feet should be long and projecting.

HOW TO BUILD A CREAMERY.

As I have heard and read much about what it will cost to put up a creamery, I will give you a little experience on the subject. I have put up a building 16x24 and 10 feet high to the eaves. It is clapboarded with inch clapboards on outside, and sealed up on the inside and overhead with common ceiling. On one end is a lean-to eight feet wide; in the lean-to are a two-horse power engine and boiler. In the upright, one Curtis three-hundred-gallon churn and two thirty-gallon Boss churns, one Mason butter-worker, one two-hundred-gallon cream vat, one pair of two-hundred-and-forty-pound scales are placed. A good well furnishes water that is about 48° F. A rise of land slopes from my creamery, giving a good drainage, and as the subsoil is just gravelly enough to make a good drainage, I dug a hole 14x16 and six feet deep, and boarded it up with cheap lumber, putting a building the same size on top of it by first setting up studs of 2x4 scantling six feet high, and boarding it around the outside with common dimension boards, clapboard fashion, and putting a roof of the same material on it. In that I stored forty large loads of Ice. It kept until October, and would have kept until this time, but I used it to raise cream or cool my milk with and to cool cream. I have made about 3000 pounds of butter this last summer, and could have made more if I had obtained the cream. Now, as to the cost: I suppose anybody can figure up what the building I have described would come to

My engine and boiler cost.....	\$200
My two Boss churns cost .....	50
Curtis churns (second hand) .....	35
Butter-worker .....	50



Two-hundred-and-forty-pound scales.....	6
Belting, pulleys, shafting .....	50
Two-hundred-gallon cream vat .....	35

For cans I think about ten gallons, is the best. They will hold enough cream to make about thirteen pounds of butter, and cost \$3.50 each.

If any of your readers want to start a creamery they will always find me ready to give any information I can free of cost.—  
[*Western Farmer.*]

#### Milk Can Jacket.

Mr. Thos. Williams, of New York, has patented a jacket or covering, for milk cans, which he claims will prevent the milk from freezing in cans upon which his Jacket is used, and it also prevents milk or cream from souring in hot weather, see advertisement in this number.

not long ago thanking him, and telling him how much pleased I was with the result of the trial. In his reply he says: "I am glad to find you feed the Mangolds. You will like them better in Summer when your cows go to the grass. *Why* your cows will be healthful, and the grass will not change their system, which would be the case on any other feed—and the change is so great that it takes the cow a long time to get over it. The roots make as good feed as June *pasture*: this I know by experience, and I could not be without them."

Mr. Crozier is a *practical* Dairy Farmer, and has had many years experience. He has one of the finest herds of Jerseys in this country, and what he says you can set down as a fact. In a short time I may report for Agricola's benefit the result of a weeks butter test-cow to be fed as laid down above.

Md.

ROYAL OAK.

## LIVE STOCK REGISTER.

## CATTLE FEEDING ON A GRAND SCALE.

To the Editor of Maryland Farmer.

### ROOTS FOR STOCK FEEDING.

I notice in your February Number that Agricola does not think Roots fit for cows, except as an "appetizer or condiment." He says "feed without stint, and without other variety and see the error &c." Can he name any food to be fed without stint, and without variety, that will produce any good, or desirable result? Cows need a variety of food, and all they can eat to make them produce an abundance of milk.

I have tried roots of all kinds, and know of no food more valuable to the dairyman. But I don't "feed without stint," but begin with a small quantity of Mangels, Beets, or Carrots, (or all three if you choose) and increase the feed gradually until a large hamper basketful can be fed at a meal to each cow without injury. Morning and night I mix one-half gallon of the meal with this, not forgetting to add salt in sufficient quantity. Of course all the long food they will eat is given them in the shape of clover hay, or cut corn fodder.

Let Agricola give the Roots half a chance, and he will find he can feed them with less cost, and better results than any other food.

I am indebted to Wm. Crozier, Esq., of Northport, L. I. for calling my attention to the value of Roots as a feed, and wrote

The Omaha *Bee* of a recent date contains the description of such an establishment constructed at Gilmore, Neb., about nine miles from Omaha, for the Union Cattle Company of Cheyenne, Wyo., which is quite remarkable in its way. Some \$75,000 have been expended in buildings and machinery, and the feeding stable, 300 feet wide and 800 feet long, contains 3,750 separate stalls, and it is the design to feed three sets of cattle each year, so that 11,500 bullocks will pass through the establishment per year. There is an elevator to facilitate the handling of grain, which is ground and cooked and distributed by means of pipes and pumps to troughs immediately in front of the cattle, and we presume water is furnished in the same way.

All the hay used is cut in an adjoining building and brought in upon tracks laid in the feeding alleys. The gutters behind the cattle contain running water, which carries away the droppings to an adjacent stream. It is estimated that between 400,000 and 500,000 bushels of corn and 7,000 tons of hay will be consumed in a year, and that about twenty-five men will be employed about the business.

The manager who is also vice-president, states that "the company was compelled to resort to this method of feeding, it being no longer possible to fatten cattle for the

market on the ranges, as the grass has become rather scarce, and even where abundant, it was difficult to get cattle ready for market," and it is his opinion that this method will soon be adopted by all the large cattle-owners upon the plains.—*Breeders' Gazette.*

### HORNLESS CATTLE.

There are many reasons why horns should be bred out of cattle intended for beef. The main reason is owing to wounds inflicted one upon another when closely penned or crowded in cars and upon steamboats on their way to market. It is also argued that horns are useless appendages and have no marketable value. In cattle bred wholly or partially for ornamental purposes, it would detract from their beauty to do away with their horns, as in the case of the Jersey. The Jersey deprived of its horns would lose half its attractiveness to the eye, and might be likened to a sheep shorn of its wool. But in cattle raised solely for beef purposes and nothing else, and where beauty has no practical value, we think a hornless breed preferable. This subject is now attracting comment through the agricultural press both here in America and in Europe. J. J. Mechi, the famous scientific farmer of Great Britain, has the following to say on the subject:

"I hate cruelty, but it is real humanity to remove the horns of cattle, and at the cost of temporary suffering to secure to them a peaceful enjoyment for the rest of their lives. Those who have seen the constant fear and disturbance to which horned cattle are exposed in a limited space, such as a covered or open farm-yard, and the injuries inflicted by horns, must come to the conclusion, that without horns the animals can feed and rest in peace—with horns, much of the farmer's profit must disappear."—*Ex.*

### Catarrh and Bronchitis Cured.

A clergyman, after years of suffering from that loathsome disease, Catarrh, and vainly trying every known remedy, at last found a perscription which completely cured and saved him from death. Any sufferer from this dreadful disease sending a self addressed stamped envelope to Dr. J. Flynn & Co., 117 East 15th St. New York, will receive the recipe free of charge.

### SHEEP BREEDING FOR PROFIT.

Increased vigor and development usually, perhaps invariably, results from crossing breeds, and this improvement is greatest where a highly bred male is coupled with females of inferior breeding. This is so well understood in England that the most of their mutton sheep are cross-bred. The Leister ram is used with Cheviot ewes, and the Downs with Cotswolds and Leicesters. In this country our so-called "native" ewes give profitable returns when mated with almost any pure-bred ram of a mutton breed, the best results being obtained when the right sort of a Down ram is used. But in the next cross only half as much improvement is obtained, and so on with succeeding generations. With each succeeding generation the necessity for a thoroughbred male increases. While a cross-bred male might have done well in the first instance, he would be an injury afterward, and would cause a retrogression in the progeny. When ewes are saved until they become three-fourths or seven-eighths pure, they should then be crossed with a pure ram of some other breed to obtain the best results.

For profit, there is nothing better than the annual renewal of the flock of breeding ewes. A proper selection of native ewes will give greatly improved lambs by a Down ram; and by good feeding they can go to the butcher at a profit, soon after their lambs have given a return of 150 or 200 per cent. upon the original cost of the flock. This can be repeated year after year. But while this may be the flock-master's rule, he should modify it so far as to retain such ewes as are of special value, either because of their individual excellence, or the remarkable resemblance of their lambs to the pure-bred sire, or their superior milking qualities.

To furnish the males for this system, it is necessary that there should be a sufficient number of pure-bred flocks in the country to supply the demand. The proper breeding and care of such flocks often require more expense and skill than most farmers can give, and they can much better afford to pay a reasonably high price for a pure-bred ram from a flock of known quality, than to attempt to breed him themselves, or to accept a cross-bred ram as a gift.—*The Farmer's Call.*



### TRAINING COLTS.

The task of training any colt, if properly managed, is necessarily a lengthy one. It is "line upon line, precept upon precept." Lessons must be frequently repeated. Repeated time after time, even after having been learned, to make sure that the colt has not forgotten. What time is there better than the winter season for training colts? There is plenty of leisure on the farm: all the boys can help, and acquire much useful information at the same time. There is an advantage in training colts in winter, and that is, the roads are apt to be superior to summer roads for this purpose. Of course as young colts cannot be shod, they should not be taken out on glare ice. When the roads are well broken, and no glare ice, colts learn very rapidly to keep in the track thus rendering the trainer's task a much easier one. It is a sensible precaution to always hitch the colt with a good-traveling old horse. It is apt to insure the colt acquiring the same gait. After the colt has been driven a few times, so that it seems to know what is required of it, then it should be driven every day, and each lesson in starting, backing, turning to the right or left, etc., should be frequently repeated. I have always found the winter season most convenient and most satisfactory for breaking colts.—*F. K. Moreland in Breeders' Gazette.*

### ADDITIONS TO POPLAR GROVE TROTTING STOCK.

Last month Messrs. E. B. Emory and B. Emory, Jr., attended the horse sale of Col. R. G. Stoner, at Paris, Kentucky. The result was the purchase of Happy Russell, Somara, Sallie D. and Marina, to be added to the choice selections of trotting stock now owned at Poplar Grove.

Happy Russell is a brown stud, two years old the coming spring. He is, without doubt, the highest bred trotting colt owned in Maryland to this date. As will be seen by his pedigree (which we have tabulated) he combines the blood of both the King, Maxey Cobb, 2.13 $\frac{3}{4}$ , and the Queen, Maud S., 2.08 $\frac{3}{4}$ , of the trotting turf. In his veins flow the richest blood of Hambletonian, (10), Mambrino Chief (11), Pilot, Jr., (12) and American Star (14). We invite our readers to carefully study this young-

ster's pedigree. Mr. E. will breed Happy Russell to his Clay fillies, and as they are out of Morgan mares, their produce so had will be a combination of the blood of all the leading trotting-bred families, a point that is now aimed at by all fashionable breeders. We think Mr. E.'s purchase of Happy Russell a wise step in the right direction.

Samara is a very highly-finished sorrell mare, by Strathmore, 408. Strathmore now has 17 performers in the 2.30 list, and is the sire of Mr. Emory's popular young stallion Avonmore, 2255. Samara is foal by Baron Wilkes. A son of his, Baronet, not yet one year old, sold a few days ago for \$2,500. Baron Wilkes is claimed to be the best son of the illustrious George Wilkes, size style and speed considered.

Sallie D. is also by Strathmore, (408), and in foal by Baron Wilkes. She is the dam of the sensational three-year-old pacer Belton, 2.31 $\frac{1}{2}$ , now owned by Mr. John F. Godwin of this county.

Marina is a brown mare of great substance. She is sired by Norman, Jr., son of Norman, (25), sire of Lulu, 2.15. She is due to foal this Spring to Mambrino Russell, 2008, the best bred son of Mambrino Woodford, 2.21 $\frac{1}{2}$ , and out of dam of Maud S., 2.08 $\frac{3}{4}$ . Marina is the dam of Ollie, 2.32.

We understand that Mr. Emory has a standing offer for the foals of these three mares, at weaning time of \$1,500.

Mr. B. Emory, Jr., bought for road use the chesnut mare Girl-of-the-Period, sired by the Clay horse, Dr. Spalding. Her dam is the dam of Joshua Ewing, 2.30 $\frac{1}{2}$ .—*Centreville Record.*

### A Good Way to Enrich Land.

If you have a field, which is poorer than any other part of your farm, make of it a pasture for a flock of sheep. If it be necessary throw up a movable fence, so as to confine the flock somewhat and pasture the field in sections. The improvement will be so marked, that you will never forget the value of this experiment. If you have no sheep the experiment is worth the purchase of a small flock, and the sheep will be no loss to you afterward.

**EDITORIAL BRIEFS.****Pure Water for Swine.**

Nothing is of so much value to stock as plenty of pure water. It is a great mistake to suppose that while it adds to the health and thrift of cattle, sheep, and horses, it is not a necessity of swine. The greatest amount of swill supplied in the pen, will not take the place of clean, sparkling water. Hogs which have not been accustomed to it, after a few days regular supply, put on new life and activity; their eyes brighten and their very grunt is more indicative of happiness and content.

**Wisconsin Dairy Products.**

When we remember that in 1873 the Dairy Products of Wisconsin were only about \$1,000,000, and that through the introduction of Creameries and Cheese Factories they now range at about \$20,000,000 annually, we should be slow to say that these great aids to the farmer are of doubtful value in Maryland.

**Fast Walking Horses.**

Other things being equal the thoughtful farmer will always take the horse whose natural walking gate is fast. Why then are not the colts early taught to walk with a spry, brisk pace? This walk is as readily taught as any other accomplishment, and it adds greatly to the value of the animal. When a horse has been travelling freely for some time on the road, it is quite a relief to have him subside into a walk; but the walk should not be too great a contrast by its slowness. A loaded team taught to walk properly will do twice the work of one not so taught, and do it with just as much ease. Farmers attend to this; a very little care will add a fifty dollar bill to your pocket book, when you sell a horse.

**Farmer's Wives and Daughters.**

If by the purchase of a machine, you are able to do away with one or two extra men on your farm, think what an amount of work you will take from the already over-

worked wife and daughters, and do not hesitate. Better pay the interest on the machine, and give the dear ones the additional rest; if rest they can get. The women of the farm are overburdened generally. Bring them all the brightness and cheer that is possible.

**Farmer's Help.**

The season is approaching, when it will be necessary for farmers to secure help. Take this matter in hand at once, and make it a point to get the right kind of help, paying fair prices for it. If you put it off now, you may probably be forced to take what you can get—miserable, unreliable, foul-mouthed men, whom you would dislike to have about your family and children. Besides, you will very likely pay these as much as you will have to pay more pleasant and reliable help if secured at once, while you can pick at your leisure.

**In the Orchard.**

A great many will be considering the pruning of their trees this month. This is often carried to excess. Do not allow any stranger—especially any travelling stranger—to put a saw into your trees. It is very seldom any limb as large as your wrist will be necessarily removed. Your own eye will generally distinguish on the limbs the suckers from the fruit boughs; and your own hands should do the pruning tenderly and carefully. Do this methodically, and it will surprise you what a space you can cover in a single morning. The owner will do the trees good; a careless stranger will frequently do an immense amount of injury.

**The Farmer's Garden.**

Remember that no one has so good a right as the farmer to have his table supplied with all kinds of fresh vegetables in their season, and the very best of them; also, with all kinds of small fruits, and an abundance of them. It is truly astonishing to see how these matters are often neglected. It is a rebellion against the first



law of nature, that a farmer should fail to supply his family with these things. And do not depend upon the women to see to this work. They have plenty to do elsewhere. When the time comes, drop everything else, if necessary, and make your garden. Every day's work there, will be worth a score of dollars to your health and happiness during the year. It is but a short work, and yet no other like period spent on the farm, will turn as much from the investment towards the success of the farmer's life.

#### Kindness to Stock.

Move gently in the midst of your stock. Never go among them flourishing a whip, a stake, or a pole, and driving them to the right and left out of your way as you move along. Keep no help about you, who is heard shouting and cursing in your barnyard or your stable. Horses and cattle are sensitive to kindness and care, and appreciate it fully as much as the average of human beings.

#### Tested Butter Cows.

Cows which have for a week recorded such exceedingly large butter yields, have generally done so under extraordinary treatment, and the farmers should not be misled by the mere bold statement of the amount yielded. Such cows have been treated as "parlor company" for weeks; blanketed and curried, and pampered, and petted continually. When the week of trial has arrived, they have been stuffed to repletion with the very best butter producing food; their appetites sharpened, their attendants always beside them to watch over, rub, curry and keep them in prime condition. When the week of trial is ended, the cow comes out in an exhausted and very sensitive condition, requiring the utmost care often to save life, and always subject to reactionary diseases if exposed at all to unusual cold or heat. The best test of the dairy cow, is one that covers a year,

or two, or even three years, with the ordinary good farm attendance and comfortable care which every intelligent farmer bestows. The cow that takes the premium in this case is the farmer's best cow; and there is no mistake.

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#### AGRICULTURAL COLLEGE OF MISSISSIPPI.

We have received and been interested in examining the Biennial Report of this Institution.

The income of the College is \$4,928 from lands donated by the United States, and \$32,500 appropriated by the State. Tuition is free for Mississippi students. The farm, although it has 1750 acres, has only 400 acres of good land. The students are allowed to cut down the expenses of board by their work on the farm, and some not only thus pay their entire expenses, but have a balance due them at the close of the college course. The College is popular in Mississippi, in good part growing out of the fact that the farmers' Institutes and Clubs have everywhere throughout the State had a word of commendation to say in behalf of the College. With ample pecuniary help from the State, it has been enabled to carry forward every department of instruction, and has been in a great many respects of inestimable benefit to the farmers of Mississippi.

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#### An Old Established Fertilizer House.

The necessity of replacing on the land those ingredients which crops are constantly exhausting is so obvious, as to need no comment from us. The main consideration with, the cultivator of the present day, is where to obtain an article suitable to the soil, as by an error in a choice of this kind the entire reward of labor may be lost. Our aim is to call attention of our readers to some of our reliable fertilizer houses, amongst them is the Zell Guano Company, whose fertilizers have stood the test of many years practical proof, and given general satisfaction.

This Company handles Ammoniated Bone Phosphate, Dissolved Bone Phosphate, Economizer Phosphate, Acid Phosphate, Tobacco Fertilizer &c.

The President of the Company is H. S. Zell, Esq., who is ably assisted by Mr. P. B. Hoge, Secretary, and Treasurer, see advertisement on page 42 of this number.

### DOMESTIC RECIPES.

**PICKLED HAM.**—This is a country delicacy. It should be small, a pig's ham and sugar-cured but not smoked. Simmer for three hours, then take off the skin, stick in a few cloves and bake for half an hour, basting it frequently with brown sugar dissolved in cider. It will be found delicious, something between ham and roast pork.

**CHESNUT DRESSING FOR GAME OR POULTRY.**—Remove the shells and skins from a pint of chesnuts and boil in a very little water. When tender crush with a spoon, season liberally with butter, celery, salt, mace and a dash of cayenne. A few bread crumbs and an egg may be added.

**CRANBERRY SAUCE.**—Add water to cover your cranberries and stew until quite tender. Pass through a colander; to a cup of the pulp add two-thirds of a cup sugar and boil ten minutes; mould.

**FISH CHOWDER.**—Two pounds of cod-fish, three onions, one-half pound of salt pork, one pound of crackers, one-half pint of milk. Cut the pork into very small strips and put in an iron pot. Fry slowly till crisp, being careful not to burn; add the onions chopped fine and let them brown five minutes, stirring constantly. Turn out on a plate. Wash the fish and cut into large pieces, put a plate in the bottom of the kettle and on it alternate layers of fish, crackers, pork and onions. Season with salt and pepper. Turn in two quarts of boiling water, cover the kettle closely and simmer gently for half an hour. Pour in the milk and boil ten minutes. Serve very hot. It is an improvement to add fifty salt oysters with the milk.

Dr. Henley's Celery, Beef and Iron has long been acknowledged specific in many cases of physical prostration, where the bodily functions have refused to do their duty. It is one of those non-secret remedies which can be taken with the most perfect confidence of success. Sold by all druggists.

### SOUTH CAROLINA'S GROWTH.

Within five years the people of the State of South Carolina have increased the value of their real and personal property by \$25,100,000. They have increased the value of their manufactured products \$21,600,000. They have increased the value of their agricultural productions \$8,600,000. They have increased the value of the live stock \$9,000,000. They have increased the value of the agricultural machinery \$1,400,000. They have expended \$1,600,000 in the construction of railroads. And the grand aggregate is that, in these five short years, the people, by their own efforts and almost unaided, by own energy and intelligence, have added \$68,300,000 to the total wealth of the commonwealth of South Carolina.—*Charleston News and Courier.*

### One of the Most Extensive Fertilizer Houses in Baltimore.

This is the season of year that the farmer is looking to the purchase of his fertilizers, and we with much pleasure call their attention to one of the most reliable fertilizer manufacturers in Baltimore, Messrs. Slingluff & Co., they offer goods which they guarantee fully up to the standard, such as Slingluff's Dissolved Ground Bone, containing 3 per cent. of Ammonia, Slingluff's Dissolved South American Bone Ash, they also offer Slingluff's Native Super-Phosphate, prepared entirely from animal bone, highly ammoniated, and Slingluff's No. 1 Ammoniated Super-Phosphate, which is said to be one of the finest low priced fertilizers in the market. This house is well known to our readers as one of the largest and most reliable fertilizer manufacturing factories in the city. Their factory, is located at the foot of Leadenhall street, and their offices at 157 W. Fayette Street, Baltimore, Md.

### Lister's Chemical Works'

The change of name of the firm of the celebrated chemical works at Newark, New Jersey, should be borne in mind by our readers. It is no longer the "Passaic Agricultural Chemical Works;" but has taken the name of the Proprietors, and will henceforth be "LISTER'S CHEMICAL WORKS," with Alfred Lister, as President



of the Company. In making this announcement, we are pleased to be able to say that numbers of our subscribers have spoken in very high terms of the fertilizers of this Company, and we do not hesitate to commend their productions to those who need really good articles of Phosphate and Bone. Baltimore office and warehouse 54, and 58 Buchanan's wharf.

### Poplar Grove Stallions.

We call special attention to the advertisement of Mr. E. B. Emory in this issue. This is an exceedingly fine lot of stallions, breeding and individuality considered, and we feel sure that our Maryland friends and those from adjoining States will freely patronize the Poplar Grove stud the season of 1886. Poplar Grove has been long celebrated for its superior herd of Short Horns, and its flocks of Cotswolds and South Down sheep, and in olden times for its thoroughbred horses. And now its trotting horse interests bid fair to equal any breeding establishment in America; its numbers at present 60, of high breeding and many of the brood mares are the dams of speedy offspring or are turf performers of individual merit. Parties in need of such stock can find what they want at Poplar Grove, and at prices and upon terms that will at all times induce purchase.

### CATALOGUES &c., RECEIVED.

J. M. Thorburn & Co., 15 John St., N. Y. For Vegetable and Flower Garden, Lawn, Farm and Nursery.

Robert Buist, Jr., 922 Market St., Philadelphia, Pa., standard seeds for growth and purity, 1886.

R. G. Chase & Co., Geneva, N. Y., Nursery Stock—Small fruits, &c.

J. T. Lovett, Little Silver, N. J., Fruit Guide—particularly small fruit of every variety.

J. C. Suffern, Bement, Illinois, Pedigree field Seeds.

A. I. Root, Medina, Ohio. Illustrated catalogue of Bees and Honey.

*Times Democrat*, New Orleans, almanac, 1886. One of the best we have received, both in appearance and substance.

Vilmorin, Andrieux & Co., Paris a very large and beautiful catalogue of flower and garden seeds.

Lister's Agricultural Chemical Works, Newark, N. J., and Buchanan's wharf, Baltimore,

Md., have issued a very superior calendar, in bright colors, representing the outcome of their fertilizers, in wheat and cotton, corn and tobacco as well as the flower garden and fields. The calendar itself is of good size, and handy for reference, when hanging upon the wall of office or dwelling.

From Elwanger & Barry, of Rochester, N. Y. Catalogue of Plants and Ornamental Trees.

From John Saul of Washington, D. C., Catalogue of Flower and Garden Seeds, also one of Plants and choice selection of Roses. we advise our readers to correspond with Mr. Saul.

OGILVIES POPULAR READING.—We have just received a copy of Number 27 of Ogilvie's Popular Reading, price only 30 cents, will be sent by mail, post-paid, on receipt of price, by J. S. Ogilvie & Co., Publishers, 31 Rose Street, New York.

The *Maryland Farmer*, Baltimore, Md. comes to us in new dress and every way improved. It is a beauty. We commend the publishers for their taste and enterprise. Price \$1.00 a year. Address as above.—*Drainage and Farm Journal*, Indianapolis, Ind.

We are in receipt of the January number of the *Maryland Farmer*, published at Baltimore, Md. It commences the year 1886, with an entire new dress of type, as well as cover page, and is very much improved thereby. It is one of the best agricultural papers in the country, and farmers wishing to keep posted on farming in the South, will do well to subscribe for it. —*Breeders Journal*, Ill.

THE MARYLAND FARMER.—The February number of this old, popular and reliable agricultural magazine has been received. It contains thirty-two pages of excellent reading matter, and some forty-eight pages of advertisements. It has a new and handsomely engraved cover upon glazed tinted paper, with an entire new dress, all of which are evidences of success and prosperity for which we tender the *Farmer* our congratulations.—*Farm and Fireside*, Baltimore.

The "ACME" Pulverizing Harrow, Clod Crusher and Leveler is a capital implement for pulverizing inverted sod, in preparing for planting corn, as it goes down several inches in mellowing the freshly turned earth, while its slanting cut prevents tearing up the sod. For this purpose alone it is worth much more than its cost on any farm of moderate size. See advertisement on page 10.

THE  
**"MARYLAND FARMER"**

A STANDARD MAGAZINE,

DEVOTED TO

**Agriculture, Live Stock and Rural Economy,**

Oldest Agricultural Journal in Maryland and  
 for ten years the only one.

EZRA WHITMAN, Editor and Proprietor.

141 WEST PRATT STREET,  
 BALTIMORE, MD.

**BALTIMORE, MARCH 1st, 1886.**


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 Advertisements to secure insertion in the ensuing month should be sent in by the 20th of the month.

Probably two hundred thousand farmers in the United States know from practical observation what the "ACME" Pulverizing Harrow, Clod Chrusher and Leveler is—how efficiently and cheaply it does the work—and how its use increases the crop by thoroughly pulverizing the soil. The remaining farmers should post themselves in reference to this valuable implement. See advertisement on page 10.

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The February number of the *Maryland Farmer* is on our table, it is neatly printed and filled with useful information, and every farmer should have a copy. Price \$1 a year, address *Maryland Farmer*, Baltimore, Md.—Person Co., *Courier*, N. C.

You will benefit us greatly by showing the *FARMER* to your friends.